


WARNING



Do not wet this product or use it in potentially wet conditions. This may cause electric leakage, resulting in electric shock or fire.

IMPORTANT

1. This is a commercial refrigerator/freezer intended to be used in household and similar applications such as:
 - staff kitchen areas in shops, offices and other working environments;
 - farm houses and by clients in hotels, motels and other residential type environments;
 - bed and breakfast type environments;
 - catering and similar non-retail applications.
 Any other use should be considered improper and therefore dangerous. The manufacturer will not be held liable or responsible for any damage caused by improper, incorrect and unreasonable use.
2. 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. Young children should be supervised to ensure that they do not play with the appliance.

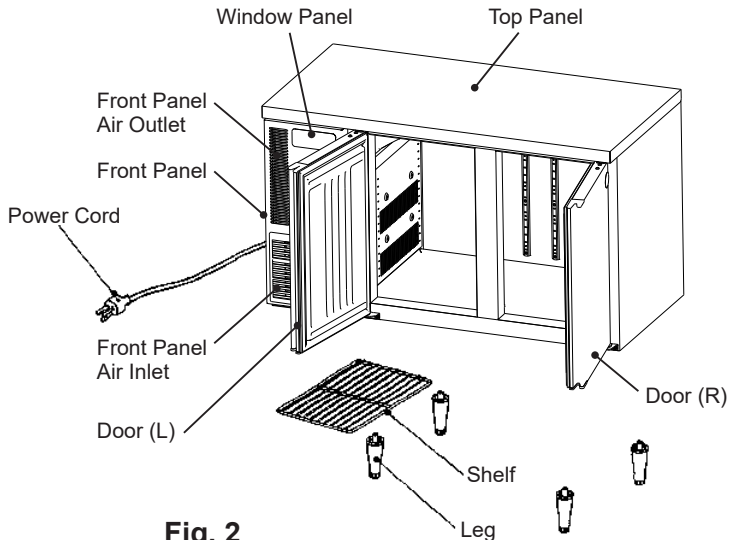


Fig. 2

- Note: 1. Attach the four legs provided to the mounting holes located at the bottom of the unit.
2. For RT/FT-96,98MA, attach the five legs provided to the mounting holes located at the bottom of the unit.

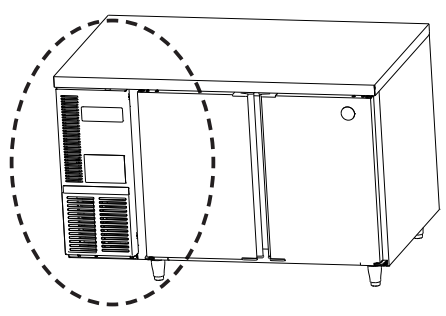
2. ACCESSORIES

Width	900mm	1200/1500mm	1800mm
a) Shelf:	2 [2]	4 [4]	6 [6]
b) Shelf clip:	8 [8]	16 [16]	24 [24]
c) Shelf holder:	5 [0]	10 [0]	15 [0]
d) Leg:	5 [5]	4 [4]	4 [4]

- Note: 1. Numbers in parentheses are for models without shelf holders.
2. Customized products may have different numbers and specifications of accessories.

I. INSTALLATION INSTRUCTIONS

1. CONSTRUCTION



Machine Compartment

Fig. 1

3. LOCATION

IMPORTANT

This refrigerator/freezer is not intended for outdoor use. Normal operating ambient temperature should be within 5°C to 43°C.

For best operating results:

- * The refrigerator/freezer should not be located next to ovens, grills or other high heat producing equipment.
- * The location should provide a firm foundation for the equipment.

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- * Avoid a site where dripping is not allowed. Especially, a side-by-side or back-to-back installation (possibly with other manufacturer's unit) may cause condensation between the two units, resulting in dripping onto the floor.
- * Do not expose the unit to direct sunlight or higher temperatures.
- * Allow at least 50 cm clearance between the front panel air inlet/outlet and the wall or other equipment for proper air circulation. The front of the unit should have enough space for smooth adjustment of the cabinet temperature. If the ambient temperature can exceed 38°C, allow at least 10 cm clearance from the wall at the side of the machine compartment to prevent overloading and damaging the refrigeration circuit.

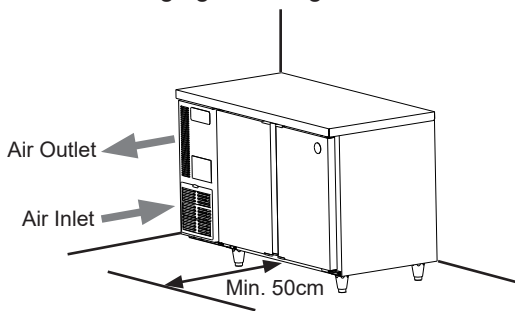


Fig. 3

4. SET UP

IMPORTANT

1. Do not tilt the unit more than 45° when mounting the legs.
2. Carry the unit by holding its bottom.

- 4) Mount the rear legs in the same way.
- 5) Before operating the unit, remove all shipping carton, packing, tape(s) and protective plastic film on the exterior, interior and top panel. Be careful not to damage the exterior panels.
- 6) Position the unit in a selected site.
- 7) Clean the interior with a soft cloth soaked in cold or warm water containing the proper amount of neutral cleaner and wrung dry.
- 8) Level the refrigerator/freezer in both the left-to-right and the front-to-rear directions. To adjust the height of the unit, turn the adjusters of the adjustable legs.

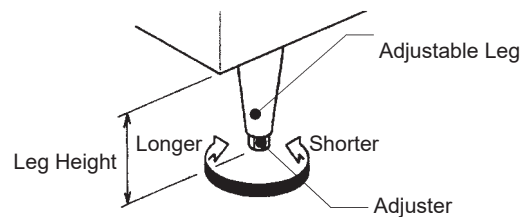


Fig. 6

CAUTION

The height of the adjustable legs must be within 9 - 12 cm (or 15 - 18 cm for some models). If extended too much, the legs may become weak or the adjusters can come off, causing unexpected injuries.

5. SHELF, SHELF CLIP AND SHELF HOLDER

- 1) Cut the shipping band and remove the carton.

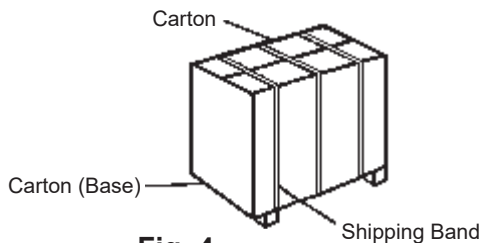


Fig. 4

- 2) Take out the accessory legs.
- 3) Tilt the unit backward to mount the front legs (work in pairs).

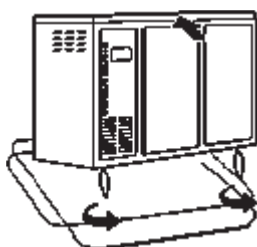


Fig. 5

- * The shelf is adjustable in 2.5 cm increments. Adjust the shelf clips according to the height of stored items.

- * To attach the shelf clip, insert the upper tab into an adjust hole in the shelf post to hook the shelf clip, and push the lower tab into another adjust hole until it locks in place. To detach the shelf clip, reverse the above procedure.

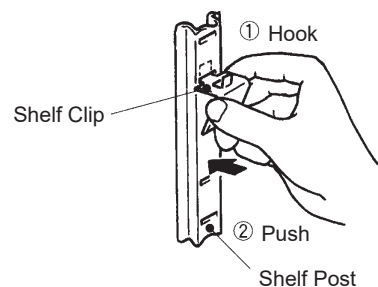


Fig. 7

CAUTION

Attach the shelf clips properly to make the shelf level.

- * To lay the shelf at the bottom of the cabinet, attach two shelf holders each to the left and right frames and one to the center frame as shown below.

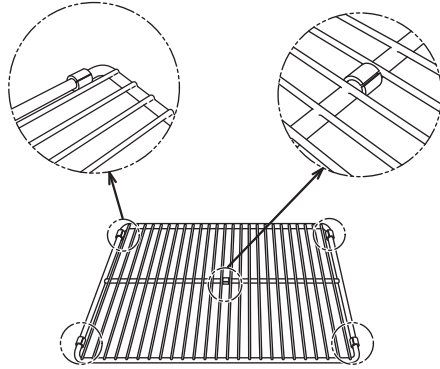


Fig. 8

IMPORTANT

When using the shelf at the bottom of the cabinet, be sure to use the shelf holders to prevent damage to the cabinet bottom, resulting in corrosion.

6. ELECTRICAL CONNECTIONS

IMPORTANT

This refrigerator/freezer is provided with no power switch or earth leakage circuit breaker, but with overcurrent protection (fuse) only. Install a switch rated at least 10A on the main power supply.

- * This refrigerator/freezer must be plugged into the separated power receptacle which is readily accessible and has enough capacity. The maximum allowable voltage variation should not exceed ± 10 percent of the nameplate rating. See the nameplate.
- * 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.

II. OPERATING INSTRUCTIONS

IMPORTANT

1. Be careful not to wet the machine compartment. This might cause failure or electric shock hazard.
2. To prevent electric shock, do not touch the attachment plug with wet hands.
3. Do not store any volatile or flammable substances such as benzene, ether, adhesives and LPG, or any explosive substances such as aerosol cans with a flammable propellant in the unit.
4. This refrigerator/freezer is designed only for temporary storage of foods. Use for any other purposes (e.g. storage of chemicals or medical supplies such as vaccine and serum) could cause deterioration of stored items.
5. Do not throw anything onto the shelves or load more than 60 kg on each of them. They may fall off and cause injury.
6. Do not store bottles or cans near the air outlet. They may freeze up and break, causing a risk of injury.
7. Do not use combustible spray or place volatile and flammable substances near the unit. They could catch fire from a spark of a switch or the like.
8. Do not put anything into the machine compartment or the air inlet/outlet. The fan rotating rapidly inside may cause injury or heat.
9. Energise the refrigerator/freezer for 1 hour and check for proper temperature before putting foods in the cabinet.
10. Do not block the air inlet/outlet with foods.
11. Do not pack the cabinet with foods. Allow some space between them to ensure good air flow.
12. Do not put in warm or hot foods. Let them cool first, or they will raise the cabinet temperature and could deteriorate other foods in the cabinet or overload the refrigerator/freezer.

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13. Make sure all items are snug on each shelf.
14. Moist or fresh foods and those with a strong smell like seafood should be wrapped up in a plastic film or packed in a container. Otherwise the foods may dry up or give their smells to other foods.
15. Foods containing acetic acid or yeast should be wrapped up in a plastic film. Otherwise they may accelerate corrosion of the evaporator and copper tubes, resulting in failure.
16. Foods intended for direct human consumption should be stored on the shelf in a proper container and protected from direct contact with the cabinet walls.
17. Do not use the freezer to freeze foods. It is designed only to store frozen foods. High quality ice cream may melt during defrost cycle and should not be stored in the freezer.
18. The doors may become difficult to open just after closed because of the negative pressure created inside the cabinet. Wait for about 30 seconds.

1. START UP

- 1) Plug in the unit.
- 2) The compressor and condenser fan motor will start in 3 minutes.

2. CABINET TEMPERATURE SETTING

IMPORTANT

1. Pressing the down key will not speed up refrigeration, but will only lower the temperature setting.
2. The temperature range given below is only the adjustable range. The actual cabinet temperature depends on the ambient temperature and other conditions.

The cabinet temperature is factory-adjusted to 1°C for the refrigerator and -20°C for the freezer. If necessary, readjust the temperature as follows.



- [1] Refrigeration Indicator Light
- [2] Defrost Indicator Light
- [3] Fan Indicator Light
- [4] Defrost Dripping Indicator Light
- [5] Set Indicator Light
- [6] Defrost Key / Evaporator Sensor
Temperature Display Key / Reset Key
- [7] Down Key
- [8] Up Key
- [9] Set Key / Switch Between Menu and Parameter Key

Fig. 10

- 1) Open the front panel.
- 2) Under normal operating conditions, press the set key for 3 seconds to enter the user menu. When the screen displays "St", press the set key again. The screen displays the value of "St". It could be modified by pressing the up or down key (see IMPORTANT 2).
After choosing the "St" menu, press the set key to set parameter value. Press the up or down key to adjust parameter value, and then repress the set key to go back to the menu choosing status.
Under the setting status, press the defrost/reset key or perform no operation for 30 seconds. The system will save the parameters and exit from the parameter setting mode.

Code	Function	Set Range	Default	Unit
St	Temperature setting (refrigerator)	-6 to +12	1	°C
St	Temperature setting (freezer)	-7 to -23	-20	°C

※ Glass door model (RT series) set temperature : -2°C to +12°C

IMPORTANT

1. The temperature setting must be between -6 and 12°C for the refrigerator and between -7 and -23°C for the freezer to prevent possible failure.
2. To avoid the risk of failure, do not make changes to other menus than "St".

3. The displayed cabinet temperature is adjusted to be almost equal to the temperature at the center of the cabinet without foods. But it can be different from the actual temperature depending on arrangement of stored foods, frequency of door opening or measuring points.

The compressor stops when the cabinet temperature reaches down to the set temperature, and starts when the cabinet temperature rises to the set temperature + 4°C. Accordingly, the average cabinet temperature will be around the set temperature + 2°C.

Set temperature (compressor off temperature)
 Off-cycle defrost (RT series): -6 to +12°C
 Heater defrost (FT series): -7 to -23°C

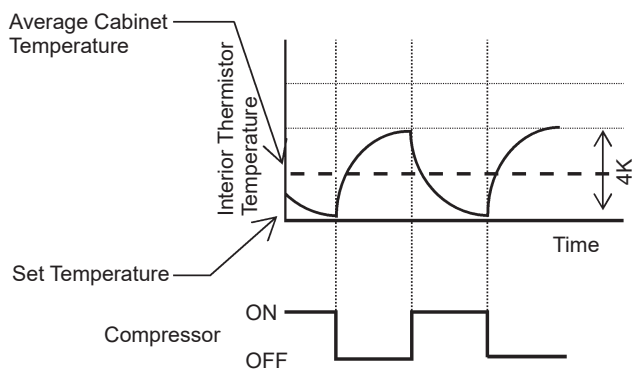


Fig. 11

3. DEFROST

Automatic defrost cycle

The refrigerator/freezer automatically defrosts the evaporator 6 hours after the refrigeration starts. The defrost indicator light on the operation panel comes on when the defrost cycle starts.

Manual defrost cycle

To start the manual defrost cycle, press the defrost/reset key for 3 seconds. The defrost indicator light on the operation panel comes on when the defrost cycle starts.

4. INDICATOR LIGHTS

Indicator Light	Symbol	Status	Meaning
Setting	set	On	Parameter setting
		Off	Measuring and controlling status
Refrigeration	❄️	On	Refrigerating
		Off	Refrigeration stopped
		Flash	Refrigeration delayed
Defrost	❄️💧	On	Defrosting
		Off	Defrost stopped
Fan	🌀	On	Fan running
		Off	Fan stopped
Defrost dripping	drip	On	Start defrost dripping
		Off	Stop defrost dripping

5. SHUT DOWN

- 1) Before shutting down the unit, move the stored foods into another refrigerator/freezer.
- 2) Unplug the unit or disconnect the main power supply.
- 3) When preparing the unit for long storage, clean the cabinet interior and door gaskets, dry them thoroughly and store the unit in a dry place.

III. MAINTENANCE

IMPORTANT

1. Before carrying out any cleaning or maintenance operations, unplug the unit.
2. Do not touch or wet the machine compartment parts. This could result in failure or breakdown.
3. To prevent possible damage, do not clean the plastic parts with water above 40°C or in a dishwasher.

1. INTERIOR, EXTERIOR, SHELF

- * Clean the interior and exterior at least once a week for sanitary use.
- * Clean off the interior and exterior with a soft cloth soaked in cold or warm water containing the proper amount of neutral cleaner and wrung dry. Do not use a water jet to clean the machine compartment.
- * Chemical agents other than neutral cleaner might cause damage to the interior and exterior surfaces.

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- * Any remaining detergent will damage metal or plastic surfaces. Use a soft cloth dampened with warm water to wipe it off.
- * Do not use the following items. They could damage painted or plastic surfaces:

Polishing powder, alcohol, thinner, benzene, acidic or alkaline detergent, hot water, petroleum, soap powder, metal scourer or brush, etc.
Especially detergent to clean grease on ventilator or microwave.

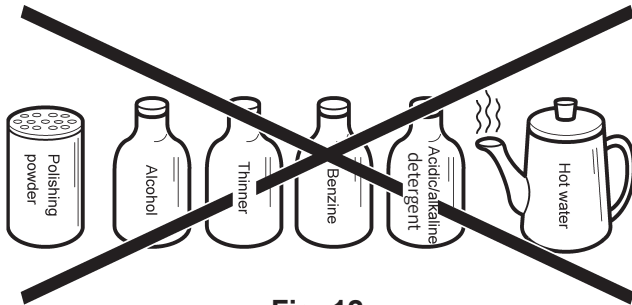


Fig. 12

Note: Some solutions other than the above may also damage painted or plastic surfaces. Immediately stop using such solutions if they cause any problems.

- * The door gasket and its contact surface get soiled easily. Clean every surface of these parts thoroughly. Remnants of food will accelerate aging.
- * Use a cloth to wipe off any water staying inside the cabinet.

2. WIRE CONDENSER

- * Use a vacuum cleaner or a soft brush to remove dust and stains from the condenser.

Note: If users clean the condenser with hard brushes, such as dishwasher brushes, the coating of the condenser may peel off, leading to rust.

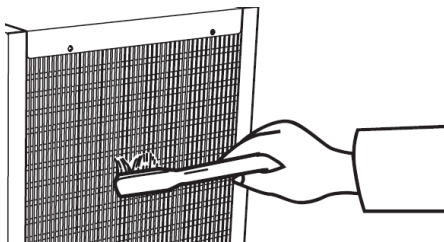


Fig. 17

3. AIR FILTER

Plastic mesh air filters remove dirt or dust from the air, and keep the condenser from getting clogged. If the filters get clogged, the refrigerator/freezer's performance will be reduced.

Check the filter at least twice a month. When clogged or when the temperature controller shows "cH", use warm water and a neutral cleaner to wash the filter. Do not operate the unit with the air filter removed, or the condenser will get clogged, resulting in failure.

- 1) Remove the screw under the front panel and open the front panel.
- 2) Remove the air filter from the condenser.
- 3) Wash the air filter carefully with cold or warm water containing the proper amount of neutral cleaner. Rinse and dry the air filter thoroughly.
- 4) To refit the air filter, put the two tabs into the heat exchanger line or fins in the condenser, and tightly attach the air filter over the condenser.

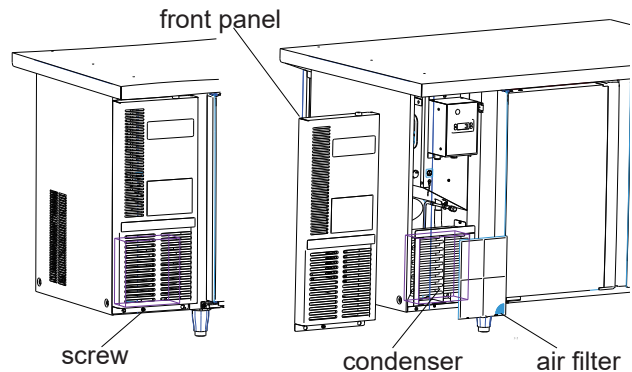


Fig. 13

4. BEFORE CALLING A SERVICE AGENT

IMPORTANT

1. If the screen on the operation panel indicates an error code or something seems wrong with the unit, check for possible causes according to the following instructions. If the problem still exists, immediately contact an authorized Hoshizaki service company.
2. When contacting a service company, let them know the model name, serial number, date of installation (see warranty card) and state of the trouble.
3. Do not attempt to repair the unit yourself.