

Instruction Manual

Hitachi Refrigerator

No Frost

For household use only

Model

R-B330PT9



Thank you very much for purchasing the Hitachi refrigerator. Before using this please read the instruction manual carefully for the correct usage.

Maintenance work must only be carried out at workshop by well-trained maintenance worker.

HITACHI

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Contents	Page
Preparation for use	
Warnings and Caution for Safety	2
Preparations before Use	4
■ Installation	4
■ Before Use	4
■ Optimal Food Storage	4
Operation	
Location of Food Storage	4
How to operation	5
■ Temperature Control	5
■ Freezer Compartment	5
■ Refrigerator Compartment	5
Maintenance	
■ Maintenance	6
■ Troubleshooting	6
■ Dew or Frost Generated	7

R600a
Refrigerant

Warnings and Caution for Safety

To avoid harm to the use, other persons or damage to property, please read and follow the warnings and cautions below and those given throughout this manual.

The following warnings and cautions are categorized by the level of possible harm or damage that may occur from ignoring directions.

The symbols are shown as below clearly showing the significance of directions.



WARNING

This pictograph indicates "There is a high possibility of serious injury or death, if ignored".



CAUTION

This pictograph indicates "There is a high possibility of injury or damage to property, if ignored".

The symbols below are examples.



This symbol is an alert mark.



This symbol indicates "prohibited".



This symbol indicates "necessary".

- This refrigerator uses flammable refrigerants. The symbol column below states the precautions on flammable refrigerants.



This symbol denotes the precautions on flammable refrigerants.

WARNING

When you install ... To avoid fire, electric shock, and injury.



- Do not install the refrigerator in a place where it may come in contact with water.
- Do not install the refrigerator in a place exposed to rain.
- This may impair electricity insulation and cause electric shock or fire.



- Ground this refrigerator to prevent electric shock and noise interference. Always ground this refrigerator and install earth leakage circuit breaker when using it in places with high humidity or moisture. (Please consult with a retailer or Hitachi Service Center.)

Power Cord and Power Plug ...To avoid fire, electric shock.



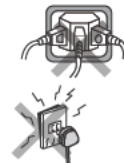
- Do not connect the wall outlet whose power capacity is less than the refrigerator's. Also, do not use power sources that are not a rated voltage.
- If a power source is shared with other appliances using double or multipoint adapters, the adapter may heat up beyond the normal level and cause fire.



- Connect the power plug firmly to a power outlet with the cord running down.
- Connection of the power plug with the cord running up could apply stress on the cord and cause electrical short or overheat, which could result in electrical shock or fire.
- Incomplete connection of the power plug could result in electrical shock or fire due to heat.



- Do not use a damaged or loose power plug or power outlet. This may cause fire or electric shock.



- 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.



- Do not cut, bend, fold the power cord to avoid fire and electric shock.



- Clean the dust on the power plug frequently with dry cloth.
- Unplug the power plug and wipe it with dry cloth.
- An insulation failure due to moisture or when dust collects on the power plug may cause fire.



- Do not insert or remove the power plug with wet hands.



- Be sure to unplug the power plug before maintaining the refrigerator.
- Be sure to hold the power plug to unplug.



During daily use ...To avoid fire, electric shock.



- Do not splash water on or inside the refrigerator.
- This may impair electricity insulation causing electric shock or fire.
- This may also cause gas leakage because of pipe rust.



- Do not disassemble, repair, or modify the refrigerator by yourselves.
- Please consult with a retailer or Hitachi Service Center if any repair is required.



- 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.



- Ether, liquid propane gas, solvent, etc. which is volatile cannot be stored in this refrigerator.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.



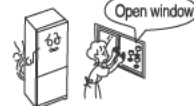
- Do not hang on the doors or step up on the various compartments.
- Injury may be caused by the refrigerator tipping over or hands getting caught in door.



- Do not put water containers or foreign articles on the top of the refrigerator.
- Opening and closing doors etc. may cause the articles on the top of the refrigerator may fall down, resulting in injury.



- Do not damage the refrigerant circuit.
- If you happen to damage the refrigerant pipe, stay away from the refrigerator and avoid using fire and electrical appliances.
- And, open windows to ventilate and contact retailers or Hitachi Service Center.



- Medicines, chemicals, research and experimental substances should not be stored in the refrigerator.
- Substances that require precise conditions for storage cannot be stored in a domestic refrigerator.





WARNING



- Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.



- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.



- In an event of a flammable gas leak, do not touch the refrigerator and open windows for ventilation.

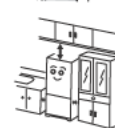
- Sparks from points of electrical contacts such as door switches may ignite explosions causing fire or a burn.



- Children should be supervised to ensure that they do not play with the appliance.
- Children getting inside may not be able to get out.



- Keep ventilation openings in the appliance enclosure or in the built-in structure clear of obstruction.



- Do not make an impact on the glass-made doors or shelves.

- They are made of tempered glass, however, an excess impact may result in breakage and is dangerous.



- If you find something wrong with the refrigerator, immediately unplug and consult with the retailers or Hitachi Service Center.



When discarding the refrigerator.



- Follow the instructions of your region when discarding.
- This refrigerator uses R-600a for the refrigerant and cyclopentane for the blowing agent of the urethane heat insulation.



- When discarding the refrigerator, remove the door gaskets.
- To avoid a risk of an infant or child to be entrapped inside.



CAUTION

During daily use ...To avoid illness and injury.



- Do not put bottles, etc. forcibly in the door pockets.
- This may cause bottles dropping down or door pockets coming off.



- Do not store food which smells or food whose color is changed abnormal.
- Such an action may cause diseases.



- Food and containers inside the freezer compartment should not be touched with wet hands.
- This may cause frost injury. (Especially in case of metal items.)



- Do not hold the top, bottom and side of the doors when closing them.
- This may result in your fingers caught by the door edge.



- If someone else is using the refrigerator, do not open the door.
- Fingers may get caught in the spaces between the doors and may cause injury.



- Do not have food items protruding over the front edge of each shelf.
- Doors may not be closed properly or the door pockets may drop down. Injury may be caused from items like bottles getting knocked over your feet.



- Do not store glass bottles in the freezer compartment.
- Bottles may break by the contents freezing and cause injury.



- Do not put your hands into the base surface of the refrigerator cabinet.
- When cleaning, putting your hands near the base surface of the refrigerator may result in injury by thin metal sheets.



- Be sure to hold the handle firmly to open or close the door.



- Do not have your feet too close when opening the door of the refrigerator.
- When opening the door, your feet may be hit, resulting in injury.



When moving or carrying ...To avoid damaging, wetting, soiling the floor, or to avoid injury.



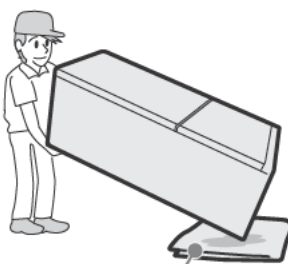
- Do not use door handles when carrying the refrigerator.
- Never use the carrying handles to hang up with a chain hoist or similar machines.



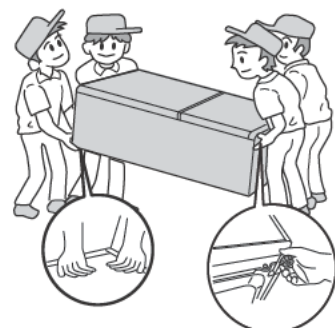
- For a floor that may be easily scratched, lay a protective mat, etc. .



- Use the carrying handle when carrying the refrigerator.
- Hold the carrying handles only. If hold door handles, hands may slip and may cause injury.
- Carry the refrigerator by at least 4 persons for safety reasons.
- Carry it with the doors facing upward.
- Before carrying the refrigerator:
 - Take out all food items and ice cubes.
 - Lay a protective sheet or cloth to protect the floor from damage and catch remaining water spilled from the refrigerator.
 - With a large piece of old cloth underneath, tilt the refrigerator backward to drain water.
 - Finally carry the refrigerator with the doors facing upward.
- Secure the doors well with adhesive tapes so they do not open.
- If transporting in a vehicle, do not load the refrigerator on its side. This could damage the compressor.



Such as old cloth



When replacing lamps (LED) is required.



- When replacing lamps (LED) is required. Please contact your dealer or Hitachi Service Center.

Preparations before Use

Installation

1. Install on a rigid and level floor.
2. Please use this refrigerator between the room temperature of 10 °C to 43 °C.
Sufficient performance may not be obtained, if the room temperature is too low or too high.
3. Do not install where the refrigerator is exposed to direct sunlight or other heat sources.
4. Install in an atmosphere which is dry or has air ventilation.
5. The refrigerator requires enough air ventilation space around the cabinet to have efficient cooling performance.
Space of at least 30 cm over the top, 10 cm at rear and 5 cm at both sides for proper air circulation is needed.
6. Ground the refrigerator to prevent electric shock and noise interference. Always ground this refrigerator when using it in places with high humidity or moisture. (Please consult with retailers or Hitachi Service Center.)
7. Adjusting the adjustable legs to keep the left/right refrigerator door level.

- Without adjusting the legs, door height may not be level, or there may be abnormal vibration or noises depending on floor conditions. Follow the instructions below.

- (1) Turn the adjustable legs until they touch the floor firmly.

Before Use

1. Cleaning inside the refrigerator. Wipe the surface gently with soft cloth.
2. Connect the refrigerator to an exclusive wall power outlet.
The refrigerator can be connected to an outlet soon after it is installed.
Surely use with the rated voltage and exclusive power outlet.
3. The compressor will start running in approximately 30 seconds, if inside is not cold.
4. Allow enough duration for sufficient cooling before storing food.
It may take about 4 hours to fully cool down and could even take about 24 hours when the ambient temperature is high.

Optimal Food storage

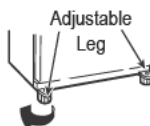
1. Keep enough space between food. Several food placed too close together may obstruct the flow of cold air.
2. Make food cool enough before putting it in the refrigerator.
Putting warm food in the refrigerator raises the inside temperature and wastes electricity.
3. Do not block the cold air vent. This will adversely affect the cold air flow and may not keep the temperature inside even. Moreover, it could result in food near the vent freezing.
4. Using food wrap or sealed containers prevent the food from drying or transition of smells.

CAUTION
Back & both sides of fridge is hot proceed from hot gas pipe inside.

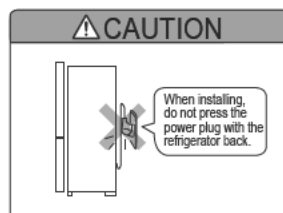
Rear side
more than 10 cm

More than 30 cm

More than 5 cm



4 hrs.



Location of Food Storage

Refrigerator Compartment 2°C~5°C

Refrigerator Shelves

- Storage of side dish, desert, etc.

LED Lamp

Temperature control

- Refrigerator temperature control dial
- Freezer temperature control dial

Spot cool (see page 6)

Fresh Select Compartment

- Storage of fruits vegetables or dairy meat. (see page 5)

Vegetable Compartment 3°C~7°C

Vegetable Drawers

- Storage of fruits and vegetables.

Refrigerator Door Pockets 2°C~6°C

Refrigerator Door Pockets

- Storage of packed small food and drinks such as juice, milk, etc.

Egg Tray

Freezer Compartment -20°C~-18°C

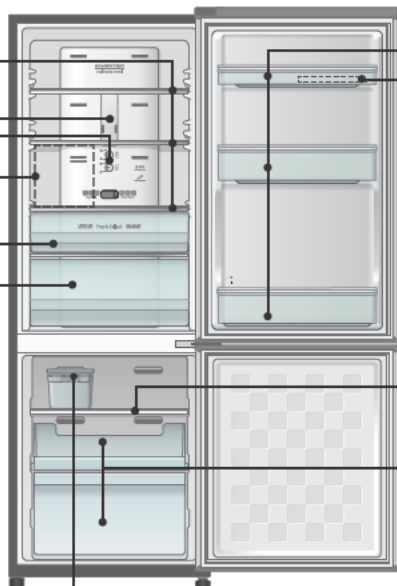
Freezer Shelves

- Storage of frozen food and ice cream, etc.

Freezer Compartment

- Storage of frozen food and ice cream, etc.

Ice tray and Ice bank



NOTICE

- Above temperatures are the approximate values in the conditions of outside temperature 32 °C, the temperature setting of the refrigerator compartment "Normal", freezer compartment "Normal", doors being closed and without food storage.
- Door pocket temperatures may be little higher than above temperatures.
- The specification of your purchased model may be different from one of the above illustration.

How to operation

□ Temperature control

This refrigerator control its temperature automatically. Please adjust a temperature control dial as follows.

1. Refrigerator Compartment	When the food is too cold	For normal use.	When cooling food more coldly or quickly
	Cold	Normal	Coldest
2. Freezer Compartment	When storing neither frozen food nor ice cream.	For normal use.	When making ice quickly or making frozen food quickly. Or, a surrounding temperature is high and the Freezer compartment is not cold enough.
	Cold	Normal	Coldest

- Please return the dial to the position of "Normal" after the "Coldest" has been set. Food may be frozen if the "Coldest" is set for a long time.
- If set the dial to the "Cold" side for a long time, the temperature of the food in freezer and refrigerator compartment may rise.

Caution about a refrigerator compartment food freeze.

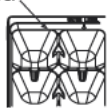
- When you place the high moisture food and vegetables at the inner part of shelf nearby the cold air vent, they will be frozen. If it is possible, please do not place the high moisture food and vegetables at the inner part of the shelf nearby the cold air vent.
- When food and vegetables become frozen, you can prevent them from being frozen by wrapping or putting them in the case. If they are still frozen, please adjust the temperature by turning the temperature control dial to "Cold".

□ Freezer Compartment

■ Ice Making

- Take the "Ice tray" and pour in water up to the full line.
- After ice is made, turn the "Ice tray" by following arrow for drop the ice.

Water level

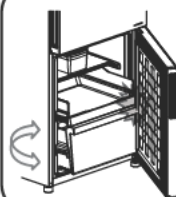


NOTICE

- Do not twist it as shown in the picture or else it will be damaged.

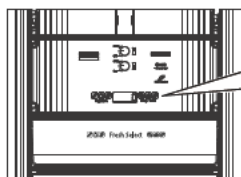
CAUTION

When you put the case wrong position you can not close the door properly but if you still try close the door, it may cause the case break down.



□ Refrigerator Compartment

1. Fresh Select Compartment

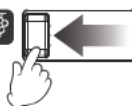


- There is a temperature control which can adjust the amount of cold air flowing into the drawer.

Set the lever to "Vegetable" to provide temperature for vegetable and fruit 3°C~5°C



Vegetable

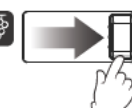


Dairy / Meat

Set the lever to "Dairy/Meat" to provide temperature for dairy / meat 1°C~3°C



Vegetable



Dairy / Meat

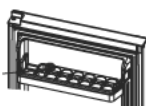
CAUTION

- If you want to store meat or fish longer, please store them in the freezer compartment.
- Be careful, it might be frozen if that food has a lot of moisture.
- When closing the refrigerator door, push the chilled case for close. If you close the door while the chilled case is still pulled out. The chilled case might be broken.
- Meat and fish can be kept fresh before being frozen.

2. Egg Tray

- It can place 14 eggs also turn the rear side to place the small items.

Egg Tray



How to operation(Continue)

Refrigerator Compartment

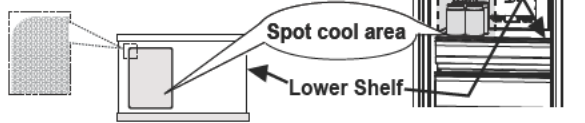
3. Adjusting the shelves.

- Pull up the back and pull out the shelf forward.
- Set the refrigerator shelves by combining with stored food.



4. Spot Cool

For items that you want to cool off quickly and powerfully. There is a space prepared on lower shelf where the direct chilled air hits those items placed here.



CAUTION

- Shelf trims are removable. Holding the shelf with both hands. DO NOT holding trim or holding shelf with only one hand otherwise it may drop or injury.
- Do not store in each case more than maximum load.

Maximum Load	
Refrigerator Shelves	9.0 kg

Maintenance

□ Cleaning (Clean the refrigerator once a month)

1. Unplug the refrigerator.
2. Take out all the food.
3. Wipe the refrigerator clean.
 - Wiping off smudges immediately is highly recommended. It is also recommended to clean the areas of the refrigerator which are not easily accessible, once a year.
 - Use soft cloth with lukewarm water to wipe off smudges. If it is difficult to remove smudges, use diluted, pH-balanced washing liquid.
 - Neatly clean the door gasket, because it gets dirty easily.
4. If any droplets remain on the surface of the parts, wipe them.
5. Return all parts to their original locations.
6. Check and clean the power plug, cord and outlet.
7. Plug the power cord into the outlet.

Notice

- Even if the power plug is plugged in immediately after being unplugged, the compressor will not run for 10 minutes. However, if the inside is not cold, it will start running in approximately 30 seconds.

CAUTION

- Do not do the following, since parts and paint may be damaged.
 1. Do not splash water to the doors and refrigerator body.
 - It may cause electric shock or a fire.
 - It may cause refrigerant leakage because of pipe rust.
 - It may result in rusty door surface.
 2. Do not use following: Polishing powder, soap powder, oil, boiling water, brush, acid, benzene, thinner, alcohol and alkaline detergent, etc.
 - It may cause damaged door surface.
 - It may cause cracked plastic parts.
 3. If the cooking oil smears on the refrigerator, please wipe it off immediately. The plastic parts might be cracked.



- When replacing lamps (LED) is required. Please contact your dealer or Hitachi Service Center

Troubleshooting

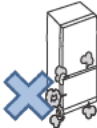
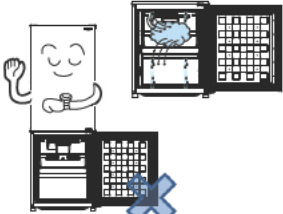
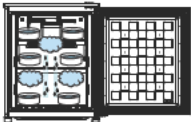

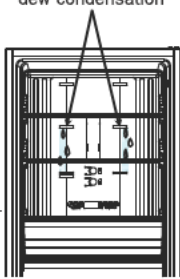


Before you call for service, please check the following items:

The refrigerator does not get cold at all.		● Is the refrigerator plugged in properly?	● Check the fuse box for blown fuse or tripped circuit breaker.
The refrigerator does not get cold enough.		● Is the refrigerator placed in the direct sunlight?	● Is the refrigerator placed near heat sources?
		● Is the temperature set to "Cold"?	● Has anything hot been placed in the refrigerator?
		● Is the food stored too much?	● Is the door being opened and closed too frequently?
		● Is the door being slightly opened?	
Food in the refrigerator compartment freezes.		● Is the temperature set to "Coldest"?	
		● Do you place food with moisture or vegetables nearby the cold air vent? It will be frozen if it is placed nearby the cold air vent.	
Dew appears.	Outside	● When the ambient humidity is too high, the door gasket may have dew. Please wipe it up with dry cloth.	
	Inside	Please wipe it off with dry cloth and please check the details below. <ul style="list-style-type: none"> ● Is the door closed firmly? ● Is it too humid outside? ● Is the door being opened and closed too frequently or opened for a long time? 	
The inside is smelling.		● Do you store food with odor without wrapping it?	
The refrigerator is noisy.		● Make sure the refrigerator is installed firmly.	● Is the refrigerator touching the wall?

This is not a malfunction of the refrigerator.

The surface of the refrigerator is hot.	● The refrigerator is equipped with the dew prevention and heat radiation tubes. The back and side plates may be heated especially when starting up or if the door is frequently opened and closed.
If a door is shut, other doors may open.	● The two compartments are connected with an air duct. When closing one of the doors, the door may be opened by the air pressure through the duct. This is a normal phenomenon.
Does the refrigerator make any abnormal noises (sound)?	● The sound like water flowing and boiling water is the sound of the cooling liquid (refrigerant). ● A creaking sound comes from the storage compartment. It is the sound caused by friction of the parts due to temperature change.
Annoying sound is generated by the refrigerator.	● You may feel that the operation sound is larger because the compressor operates in high-speed under the following conditions: the refrigerator does not cool fully on the occasion such as using it for the first time, opening/closing the door frequently, the surrounding temperature is high. The sound becomes more quiet after cooling fully. The compressor operates at low speed at night, for long vacations or absences, potentially creating large vibrations.
Operation sound lasts long.	● It is because the compressor operates in low-speed for conserving energy.
Operation sound sometimes becomes louder.	● It is because the system changes the operating power of the refrigerator according to the temperature change.
There are waving and/or distortion the door surface, the side and the top surface of the refrigerator.	● Slight waving and/or distortions are generated in the manufacturing process of the refrigerator. They may be conspicuous according to the position of the light source and/or the brightness etc., but there is no problem with the performance.

Dew or Frost is Generated

	General operation	Please check here	Possible causes and /or Recommended solutions
Frost or ice is generated in the freezer compartment		The door of the freezer compartment was not left open temporarily?	Check that the wrapping paper of the food is not getting caught in order not to make gap between door and door gasket when you close the door. 
		The door of the freezer compartment was not opened frequently or longer time than necessary?	When the door is opened frequently or if the door is opened when the humidity around the refrigerator is high, moisture in the air may be turned into some frost or ice on the inner wall or component of the freezer compartment, or around the air channels. This is not a failure. Please try not to open the door too many times or for a long time. Also, please wipe frost or ice generated in the freezer compartment off with use of a dry cloth. 
		Making extra ice by using an additional ice-tray which was not originally installed in the refrigerator?	When the many containers in which water or liquid is stored are put in the same time, water or liquid may be evaporated and turned into frost or ice on the wall or component of the freezer compartment, or around the air channels. You can suppress these frost and ice by putting lid to avoid evaporation. Please wipe frost and ice off with use of a dry cloth. 
Dew is generated in the refrigerator compartment		The door of the refrigerator compartment was not left open temporarily?	Please check not to pinch the food or plastic bag between the door and door frame when you close the door. 
		The door of the refrigerator compartment was not opened frequently or longer time than necessary?	When the door is opened frequently or if the door is opened when the humidity around the refrigerator is high, moisture in the air may be turned into some dew on the inner wall or component of the refrigerator compartment, or around the chilled air blow-off port. This is not a failure. Please try not to open the door too many times or for a long time. Also, please wipe off the dew in the refrigerator compartment with a dry cloth. 
		Storing many vegetables containing much water?	The humidity of the vegetable compartment is higher than other compartments. Accordingly, depending on the amount or type of the vegetable, dew condensation may be generated on the plastic case of vegetable compartment. However, this is not a failure. When you do not want to have this kind of dew, please wrap your vegetables in a plastic film. Also, when the dew condensation happens many times, water may be accumulated in the vegetable compartment. Please wipe the water off with a dry cloth.
Dew is generated on the outer surface of the refrigerator		The volume of humidity around the refrigerator is not high?	When the humidity rises such as in rainy day, some dew may be generated on the outer surface of the refrigerator. Please wipe the dew off with a dry cloth. 
		The temperature setting is not set as "Coldest"?	When the temperature setting is set as "Coldest", some dew may be generated on the outer surface of the refrigerator. Please set the setting as "Normal". Also, please wipe dew off with use of a dry cloth. 

Why frost and dew are generated?

When warm and humid air contacts something cold, dew is generated. For example, if you put some ice in the glass in your room, air around the glass will be cold down and some dew may be generated on the outer surface of the glass.



In the same way, when warm and humid air enters into the refrigerator at the door opening, the warm and humid air contacts cold inner wall and little dew may be generated.



Accordingly, if the door opening is too frequent or too long, dew will be accumulated at every door opening. In some cases, dew may be frozen to generate some frost or ice flakes in the freezer compartment.

About Non-fluorocarbon refrigerator.

- This refrigerator, including refrigerant and the heat insulator, is using hydrocarbon (non-fluorocarbon). The hydrocarbon is a material that does not rip up the ozone and have very little influence on global warming. It is the global environment concern material).
- R600a refrigerant is flammable. But the refrigerant is being sealed up by the refrigerate circuit, and never leak by usual use. In case of the refrigerate circuit being damaged by any chance, please avoid the use of fire and electric product, open the window and ventilate. Afterwards, please contact Hitachi Service Center.

Severe warning signs for Disposal

Cyclopentane is used as in the insulation. The gases in insulation material require a special disposal procedure. Please contact your local authorities in regard to the environmentally safe disposal of this product.

WARNING

- Children should be supervised to ensure that they do not play with the appliance or get in.
 - Children getting inside may not be able to get out.
 - This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
 - Children shall not play with the appliance.
 - Cleaning and user maintenance shall not be made by children without supervision.
- The appliance is 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.



This symbol mark means that used electrical and electronic products shall not be mixed with general household waste. Do not try to dismantle the system and unit by yourself as this could have harmful effects on your health and the environment. Refrigerators must be treated at a specialized treatment facility for recycling and recovery and shall not be disposed of in the municipal waste stream. Please contact the installer, dealer or local authority for more information.



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