

ECONAVI

INVERTER

Panasonic®

Operating Instructions

Refrigerator (For Household Use)

Model No. NR-BD418P
NR-BD468P

Contents

Introduction

Safety Precautions 2

Installation

Installation 4

Parts Identification 5

Operation

To use all features 6

Control Panel 6

Food Stored 7

Using Tips 8

ECONAVI Operation 9

Freezer Compartment 9

Refrigerator Compartment 11

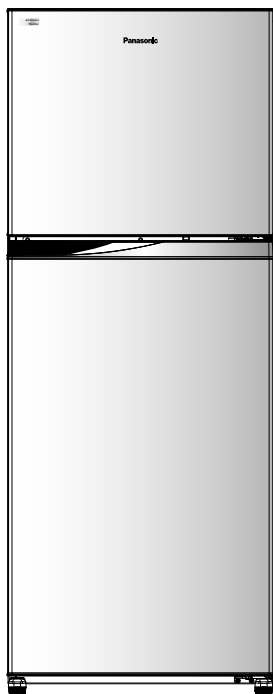
Appendix

Cleaning, removing and re-installing 12

Cleaning 12

Troubleshooting 15

Specifications 16



Thank you for purchasing a Panasonic Refrigerator.

- Before operating this unit, please read these instructions completely.

Before using this product, please pay particular attention to the “Safety precautions” section (Pages 2 and 3) for safe use.

- Please ensure the date and name of store of purchase are stamped in warranty card and keep it stored together with these operating instructions in a safe place for future reference.

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Safety Precautions



WARNING

This expression presumes possibility of a death or serious injury.



CAUTION

This expression presumes possibility of personal injury or property damage.



Do not



Make sure you do this



Do not take apart



R600a

iso-butane

Risk of fire / flammable materials



WARNING

For power plug and cord...



- Periodically wipe the power plug with a dry cloth. (Dust accumulated on the plug of a refrigerator that operates continuously leads to reduced insulation due to moisture and may cause fire.)
- Plug into a wall outlet of the rated voltage on its own with the rated current and insert plug fully.
- Connect to an exclusive wall outlet for the refrigerator only. Avoid connecting other appliances to the same wall outlet. Unroll entire length of the cord before plugging in.
- Unplug the unit when cleaning the refrigerator.
- 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.
- Please ensure minimum clearance of 10 cm for air ventilation and prevent damage to the power cord.
- Do not let the cord get damaged.
- Do not insert or disconnect the power plug into/from the wall socket with wet hands.



In order to prevent fires, electrical shocks, explosion, injuries, etc.



In case of emergency...



R600a
iso-butane



- Maintenance work must only be carried out at workshop by well-trained maintenance worker.
- Do not store explosive substances such as aerosol cans with a flammable propellant and chemicals or scientific specimens in the appliance.
- Do not use electrical appliances such as a deodorizer in the refrigerator. Leaked refrigerant may catch fire from a spark of the electrical contacts and may cause an explosion.
- 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 disassemble, repair or modify the refrigerator by yourself. If you want to repair the refrigerator, please consult your dealer or authorized service center.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

When recycling the product...



- Before taking the refrigerator to be recycled, please remove all the door gasket to prevent locking a child in it.
- The operating instructions should be handed over to any person who would use or handle the refrigerator whenever the refrigerator would be transferred to another location and delivered to a recycling plant.
- Cyclo-Pentane is used for insulation of this refrigerator and flammable gas is used for refrigerant. When disposing of this unit, please discard it by the proper method and do not dispose of the unit by burning.
- The warning labels mentioned above should be kept throughout the life of the refrigerator.

On top of the refrigerator...



- Do not put anything on top of refrigerator. Otherwise, it may fall due to vibration of the machine.



WARNING

When installing...



- Do not install the product in locations exposed to water.
- Provide a grounding connection or install a ground-fault interrupter when the product is installed in a humid or wet location. (Contact your distributor.)
- Do not block the ventilation port of the refrigerator or spaces around it. Leaked refrigerant may cause a fire and explosion.
- Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.
- For safety it should be checked that the ground connection system in the house has been installed correctly.



When using...



- Do not let any children hang or ride on the refrigerator door, the unit may turn over and cause an accident.
- Do not apply water on the body or interior. Electrical insulation could deteriorate and may cause shocks or fire.
- Do not damage the refrigerant circuit (piping on the back). The flammable refrigerant may catch fire and lead to an explosion.
- Do not touch the compressor or pipes because of high temperature. There is a risk of burn injury.
- Do not spray combustible chemicals near the refrigerator.
- If you detect a burning smell, disconnect the power plug.
- If you detect a gas leak from the cooling range, ventilate the kitchen.
- If you have damaged the cooling circuit (piping on the back), then ventilate the kitchen and contact your distributor.
- Refrigerator LED lamp. The refrigerator LED lamp is designed specially for this product, it does not function on individual replacing. If replacement is required, please contact your dealer or authorised service agent.



- 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 supervised to ensure that they do not play with the appliance.

The refrigerator will not be used for a long period of time.



Unplug the refrigerator and take out all the food in the refrigerator. Wipe off all the water and open the refrigerator to keep it dry. Prevent children from enter the refrigerator.



CAUTION

When storing food...



- Do not freeze glass bottles, that there is a risk of injury. (If the liquid in a glass bottle is frozen and broken, you may be injured.)
- Do not touch frozen foods or containers (especially metallic) with wet hands.
- Do not place warm/hot foodstuffs in the refrigerator. Store warm food and drinks after they have cooled.
- Do not eat any smelling or colour-changed food. Rotten food may cause illness. Do not subject glass trays to high impact. (Otherwise those glass trays may break and you may be injured)
- Food containers must reach the bottom of the door shelves.
- The foods must not protrude from the shelf.



When opening/closing the doors...



- Do not open the refrigerator doors when someone is in the vicinity of the refrigerator.
- Do not open refrigerator frequently or leave it open for long time in order to prevent water dripping inside and waste energy.
- Mind the gap between the doors. They may nip your hand while closing the door.

When cleaning...



- Do not clean the refrigerator with chemical substance or liquid. It will cause damage and have corrosion on the surface.
- Do not place your hands or feet beneath the bottom of the refrigerator.

When moving or transporting the refrigerator...



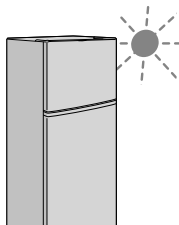
- Do not transport refrigerators in a horizontal position. Laying a refrigerator horizontally may damage the piping. If any damage is noticed, do not touch the refrigerator, avoid using fire and ventilate the room.
- Apply protective covering, etc. to floors with a fragile surface.
- Hold the carrying handles when transporting the refrigerator.



Installation

Is the refrigerator installed in the following locations?

- Locations subject to heat and direct sunlight (The cooling power will be reduced and electricity wasted.)
- Poorly ventilated locations with high humidity (Rust will be caused.)
- Locations where the surface is unstable and slanted
→ On carpet, mats, or vinyl floors, place a plate underneath the refrigerator.
- Locations not allowing the power plug to be cleaned easily (Dust accumulated may cause a fire.)



Do not open/close the doors during the interior cooling process.

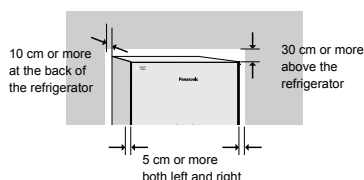
Do not open/close the doors until the interior has cooled down sufficiently. (Warm air flowing into the interior will block the cooling function.)



Please wait until the interior has cooled down.

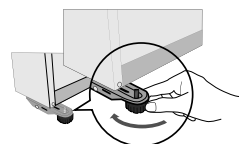
- It may take approximately four hours to cool down the interior.
- It may take 24 hours or more to cool down the interior and achieve equilibrium in the summer, etc.
- Ice-making starts only after the interior has been cooled down sufficiently.

Has a heat radiating space been provided around the refrigerator?



Fix the refrigerator.

Turn the adjuster bolts (right and left) until they reach the floor to stabilize the refrigerator.

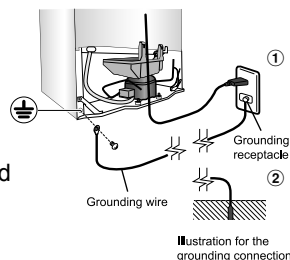


For safety, the grounding connection should be done

(For a refrigerator with plug (2-pin plug) without any grounding wire)

The grounding connection will allow prevention of danger resulted from electricity leakage. The grounding connection can be performed in 2 ways as follows:

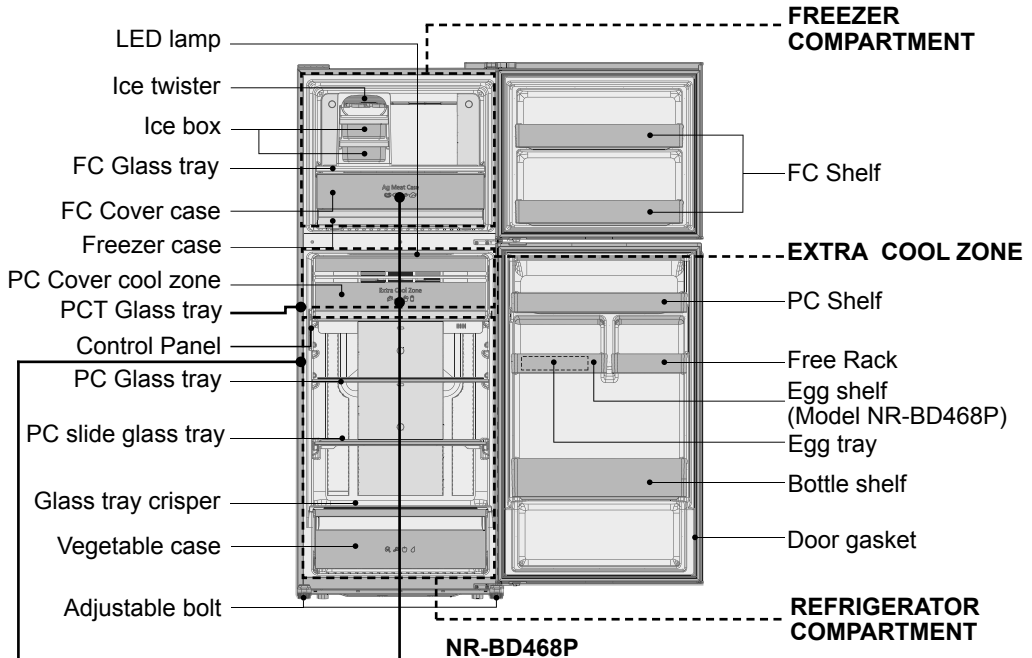
- In the case that the grounding receptacle has been prepared for the socket (plug socket), connect the grounding wire to the screw used for grounding connection at the bottom rear of the refrigerator (regarding the screw used for grounding connection, please notice the ⚡ symbol) as shown in the illustration ①.
- In the case that the socket (plug socket) has not been provided with any grounding receptacle, connect the grounding wire to the screw at the bottom of the refrigerator, (as regard to the screw used for grounding connection, please notice the ⚡ symbol). And then connect the other end to the grounding rod as shown in the illustration ②.



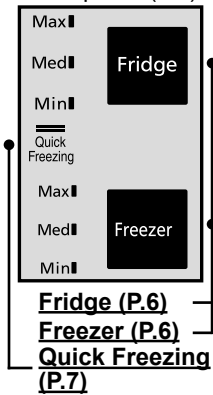
Prohibited spots for grounding connection

- Water supply pipes and gas pipes (dangers from electric shock or explosion).
- The grounding wires of telephone cords and lightning rods (dangers from lightning).

Parts Identification



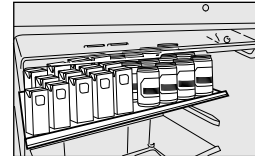
Control panel (P.6)



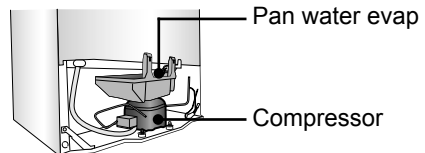
Ag Meat Case (P.8)



Extra Cool Zone (P.8)



- Settings at time of purchase.
- Do not subject the control panel to a strong impact, or hit it with a hard object. (The surface may be cracked or scratched)



Product view from behind

■ SPECIAL FEATURE

●NON-FLON

This unit uses totally NON-FLON MATERIALS both for refrigerant (iso-butane (R600a)) and for insulation (Cyclo-Pentane). These materials do not damage the earth's ozone layer and have almost no effect on global warming.

●INVERTER

In accordance with temperature change inside the compartment, the motor will run at different speeds. When the temperature inside the refrigerator is stable, the motor will run at a lower speed to save energy and lower noise. When powerful cooling is required, the motor will run at a higher speed.

To use all features

Control Panel

■ Temperature setting and a guide of temperature

The temperature can be adjusted for Min-Max levels.

Press [Fridge] button to adjust temperature in refrigerator compartment and press [Freezer] button to adjust temperature in freezer compartment.

Temperature setting Button	Max	Med	Min
Fridge	Lower than "Med" by 2°C ~ 3°C	Approximately 1°C ~ 6°C	Higher than "Med" by 2°C ~ 3°C
Freezer	Lower than "Med" by 2°C ~ 3°C	Approximately -23°C ~ -17°C	Higher than "Med" by 2°C ~ 3°C

Normally, use the refrigerator with the temperature set to "Med".

(If the temperature control of the freezer compartment or refrigerator compartment is set to other than "Med", ECONAVI does not operate.)

■ How to operate the "9 levels" mode

This refrigerator is specially designed with adjustable temperature levels using 9 different temperature levels as explained below:

For the Refrigerator Compartment

- ① Set the LED display to the "Min" position by pressing the [Fridge] button.
- ② Press and hold the [Fridge] button for 10 seconds until the LED display is at the "Min" position.
- ③ Use the [Fridge] button to set the required temperature mode, where one step is the minimum cooling mode and 9 steps is the maximum cooling mode.

For the Freezer Compartment

Operate above ① and ③ steps with pressing [Freezer] button instead of [Fridge] button.

To reset the setting "9 levels" mode

Repeat steps ① and ② to return the unit to normal operation mode.

Step	Cooling Level								
	Minimum						Maximum		
LED Display	1	2	3	4	5	6	7	8	9
	Max Med Min	Max Med Min	Max Med Min	Max Med Min	Max Med Min	Max Med Min	Max Med Min	Max Med Min	Max Med Min
■ Lighting			■ Blinking			■ Not lighting			

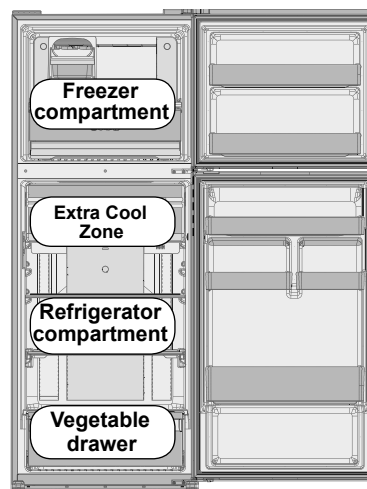
- The temperature control can vary depending on the environment and amount of food stored in the refrigerator.

Food Stored

- In order to preserve food quality for long time, please store it in the right place.

When storing food...

- Foodstuff such as vegetable, fruits and fresh food should be wrapped or pack in box before freezing and refrigerating.
- If you will put high moisture content into refrigerator, should be sealed and wrapped to prevent dew and frost.
- Drinking water, beverage bottles should be sealed to prevent the odour.



Where to store these different foodstuffs?

Approx.	3°C~9°C	Vegetable drawer	A rather high humidity keep fruits and vegetables fresh and juicy.
Approx.	1°C~6°C	Refrigerator compartment	For regular storage of food and drinks or temporary storage of these to be served soon.
Approx.	-1°C~3°C	Extra Cool Zone	For dairy products, etc. that perish easily but whose quality changes if frozen.
Approx.	-23°C~-17°C	Freezer compartment	For storage of frozen or dried foods.

- When set to “Med”, the temperature may vary slightly depending on the usage conditions.

Using Tips



Basics of energy saving

Save cool air!

Do not stuff food into the compartments.

That may interfere with the cold air flow. Provide sufficient space between foods.



Store warm food and drinks after they have cooled.

Otherwise, they will not only raise the interior temperature, but also affect the freshness of other foods.



Do not block the cold air outlet with food items!

If cool air does not spread into every corner of compartments, then the interior will not be sufficiently cooled and more electricity will be consumed.



(Air outlet)

Do not put food in the refrigerator when it is not necessary.

■ A cold dark place will suffice!



It is not necessary to store uncut onions, potatoes, etc. in the refrigerator (except during the summer).

■ Cool just before you eat!



If uncut tropical fruits are cooled down excessively, they may be discolored or their vitamin contents may decrease.

Storage using tightly sealed containers is recommended!

To prevent the interior from being discolored!



- Cut citrus fruits
(→The plastic will be discolored white.)

To prevent odors from spreading!



- Garlicky or other strong smelling vegetables
(→ Odors will spread to other nearby food.)

ECONAVI Operation

The refrigerator detects the opening and closing of the refrigerator door and the brightness around the refrigerator to automatically control operation to ensure maximum energy saving. *1

ECONAVI operates only when the temperature setting is “Med” for both the freezer and refrigerator compartments.

■ ECONAVI operation

- The refrigerator learns the lifestyle patterns of your family from door opening and time periods of infrequent use to maximise energy efficiency.
- The refrigerator learns your lifestyle patterns from the previous 3 weeks of use and uses that data from the 4th week onwards.

■ Settings for enabling ECONAVI operation

- ECONAVI operation is automatically enabled when the temperature control for the freezer compartment is set to “Med”.
- ECONAVI mode does not operate if the [Quick Freezing] mode is in operation.
- It is not possible to force to start of the ECONAVI mode.

Remark

*1 The effectiveness of the ECONAVI mode is dependant on the ambient temperature, ambient brightness and the number of times the refrigerator door is opened and closed and the state in which food is stored.

Freezer Compartment

Using “Quick Freezing”

■ When [Quick Freezing] is set, the speed of ice making is increased.

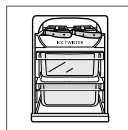


Lamp is on: Quick freezing is on
Lamp is off: Normal ice making is on

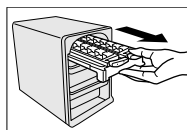
- Press the [Freezer] button until “Green LED light at Quick Freezing” turns on. (Quick Freezing mode starts after 10 seconds.)
- The Quick Freezing operation will automatically stop after 60 mins (as ambient temperature is below 19 °C) or 150 mins (as ambient temperature is above 19 °C) and return to normal mode. (The Green LED light at Quick Freezing turn off)
- To stop the Quick Freezing operation, press the [Freezer] button until “Green LED light at Quick Freezing” turns off.
- A flashing “Green LED light at Quick Freezing” indicates the defrosting system is active. The Quick Freezing operation will start right after the defrosting operation is finished.
- The Freezer temperature control will not operate during Quick Freezing mode as the compressor is already at maximum operating levels for the Quick Freezing mode.

To make ice

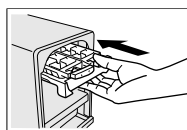
- ① Take out the ICE TWISTER
 - Pull out the ICE TWISTER.



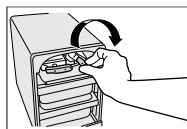
- ② Fill with water
 - Fill water up to the "WATER LEVEL" line.



- ③ Install the ICE TWISTER
 - Place tray back into the ice making compartment.



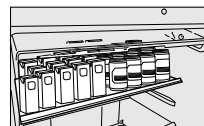
- ④ To move ice cubes
 - Twist the ICE TWISTER clockwise.
(The ice cubes will drop into the ice box.)



Using as the Ag Meat Case

■ When you want to extend the life of food by partially-freezing it.

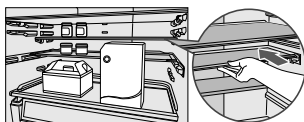
- This room is suitable for storing fresh food such as meat or fish.
- Temperature can be set to either "Min", "Med" or "Max" to fit the volume and type of food. (P.6)



Refrigerator Compartment

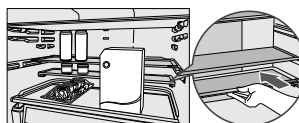
The “PC slide glass tray (the third tray from the top)” can be split into front and rear parts.

- Remove the front part and set it above.



- You can easily place large pots.

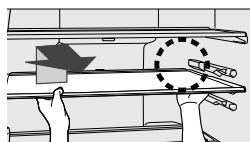
- Remove the front part and set it below.



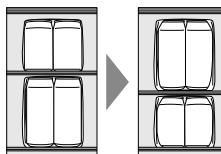
- You can store a lot of small food.

The position of the second tray from the top can be changed.

- ① Lift up the back of the tray and pull it forward.



- ② Insert the tray in the desired position by reversing the steps.



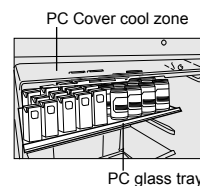
- Glass shelves are heavy. Please handle them with care so that they do not fall and cause any damage or injury.
- PC glass tray cannot be put on the position of PCT glass tray (the first tray from the top).

Using as the Extra Cool Zone

- When you do not want to freeze food.

- This room is suitable for storing chilled food or dairy products.
[Example of food to store]

- Chilled food
- Fresh cream
- Yogurt
- Boiled noodle
- Cheese



- Depending on food, it may be frozen partly. Change the position of food or set the temperature setting of the refrigerator compartment to “Min”.

Cleaning, removing and re-installing

Before cleaning or conducting maintenance, be absolutely sure to disconnect the power plug from the power outlet. Do not connect or disconnect the power plug with wet hands. When the plug is disconnected, leave it for 10 minutes before plugging again. If not, the compressor may not work.

Cleaning

Clean the refrigerator immediately after it is stained!

Wipe off stains on the interior surfaces quickly before they harden. In particular, cooking oil may cause plastic to crack and citrus juice may cause the refrigerator to become discolored. When stains cannot be removed easily, wipe them with a cloth lightly soaked in neutral kitchen detergent. Then, wipe with a cloth lightly dipped in water.



Clean the detachable items occasionally...

Once a week for the ice twister. As a guide, remove the trays, door shelves, etc. and wash them by immersing them in lukewarm water every three months.

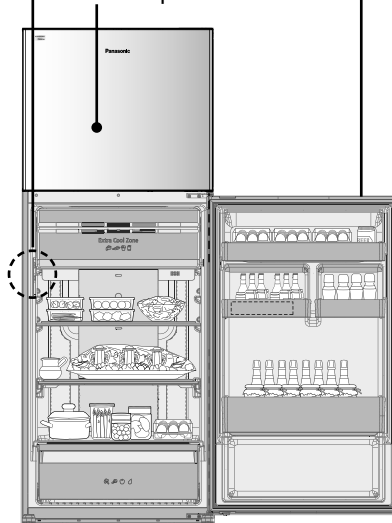


Clean the door gasket at least once a month.

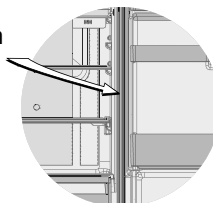
Clean by wiping with a soft damp cloth. Petroleum gel has been applied to the door gasket on the hinge side of the unit, be careful not to wipe this off.

Rub the control panels with a dry cloth.

Rub the door surface with a soft damp cloth.



Point where petroleum gel was applied.



Notices

The "door gasket" is replaceable by an authorised service agent. If the door gasket comes off while cleaning, it can be pushed back into the groove.

Requests

Do not use the following items for cleaning. (Otherwise, the surface will be scratched.)



Kitchen detergents
(They crack plastic)

Alkaline or faintly
Alkaline



Cleanser or soap powder



Benzine, thinner, alcohol,
acid, petroleum



Scrubber



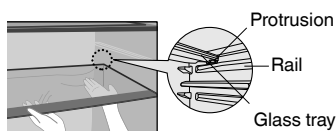
Hot Water

Trays / PC slide glass tray (Made of glass)

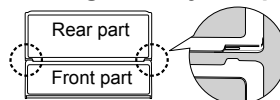
Once every 3 months

■ Trays

Lift up the back of the tray and pull it forward. Once the protrusions of the tray are unhooked from the rails, tilt the tray and remove it.

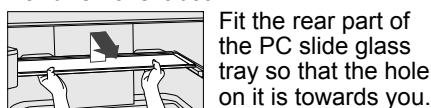


■ Unhook the protrusion at the front of the PC slide glass tray and pull it.



■ Remove the PC slide glass tray

- ① Unhook the front part by lifting it up slightly.
- ② Slide the front part under the rear part and remove it both.



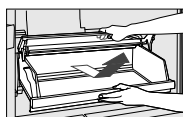
Attention

- When removing the tray above the vegetable case, please pull out the vegetable case first and then follow to removing the tray as above details.
- In case of attaching the tray and it does not lock, make sure that you did not attach it the wrong tray.
- Trays, the PC slide glass tray are made of glass and heavy. Please handle them with care so that they do not fall and cause any damage or injury. For attaching trays, hold them with the protrusion side down and firmly insert.

Case (Ag Meat Case)

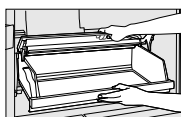
Once every 3 months

■ Removing



Pull out the case as far as possible. With lifting up the front, pull it out at an angle with holding the flap above the case.

■ Attaching



With holding up the flap, lift the back of the case and install it along the rails inside.

Attention

- When pull or attach the freezer case, be sure to grab its handle with upturned hand. Please refer to the above illustration. (Otherwise, FC cover case may accidentally hit your fingers.)

PC cover cool zone (Extra Cool Zone)

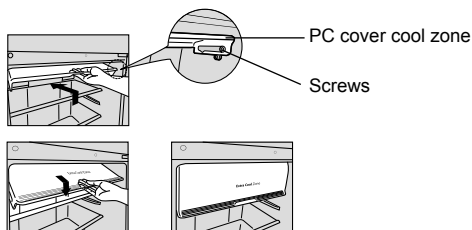
Once every 3 months

■ Removing

Lift up the PC cover cool zone and slide it into the above slot until it reaches the end of the stopper. Then remove screws to take off the cover.

■ Attaching

Insert the PC cover cool zone into its slot and tightening screws. Then slide it out and pull the cover down.



- Be sure to grab the cover with upturned hand. Otherwise, your hand may accidentally hit the refrigerator.

Door shelf /Bottle shelf

Once every 3 months

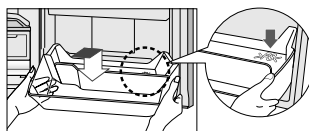
■ Removing

Tap the bottom of the small shelves upward or slide alternately the left and right of the big shelves upward, and raise them slowly. (Tightly attached)



■ Attaching

Set each shelf horizontally, with the mark [>PS<] on the right, and push it down to its proper position.



Vegetable case

Once every 3 months

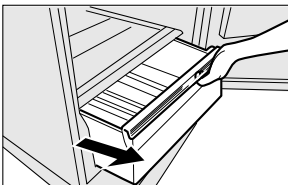
■ Removing

- ① Pull the case unit forward until it reaches the end of the stopper.
- ② Lift the front of the case unit slightly and remove completely.



■ Attaching

- ① Insert the case unit into the supports.
- ② Raise the case unit up slightly and push forward until the end is reached.

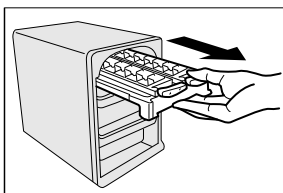


ICE TWISTER (Quick Ice Making corner)

Once every 3 months

■ Removing

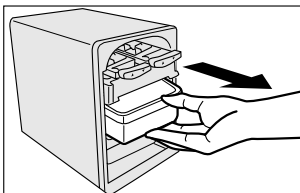
- ① Unhook the protrusion by lifting it upward and pulling the ice twister and [ice box] forward until completely removed.



ICE TWISTER

■ Attaching

- ② Push the ice twister and ice box until it reaches the end lock.



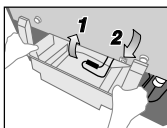
ICE BOX

Attention

- You can disassemble the ice twister, ice box or removing ice twister sets to increase space in the freezer.

Pan water evap (Backside of the refrigerator)**Once every 3 months****■ Removing**

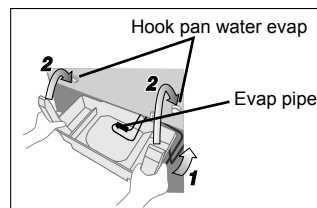
- ① Tilt up the pan water evap a bit and then lift it upward until the pan water evap hole unlocks from the hook pan water evap.



- ② Pull the pan water evap until it touches with the evap pipe then carefully take it out under the evap pipe.

■ Attaching

- ① Insert the pan water evap under the evap pipe.
- ② Insert the pan water evap hole into the hook pan water evap as well as press-fitting both sides.

**Requests**

- Do not damage or deform the evap pipe.

Troubleshooting

In these cases?	Check here.
The refrigerator does not operate.	● Check that the plug and wall socket are in good condition. ● Check if there is any problem with the mains fuse or house wiring. ● Check by unplugging for 10 minutes and plugging back in.
The refrigerator does not cool enough.	● Check to be sure that light in control panel is display at proper position (P.6) ● Check to ensure that the refrigerator is not overloaded with foodstuffs or that hot food have been placed in the refrigerator. ● Is the refrigerator exposed to direct sunlight or a heat source? ● Is the refrigerator door completely closed? ● Is the refrigerator door opened frequently?
Vapor generated inside and outside the cabinet / surface of door.	● Condensation may appear on the surface of the cabinet when humidity is high or air circulation around the unit is poor. ● If there is condensation inside, check if the door is completely closed. Is the refrigerator frequently opened or left open for a long time? Have any hot foodstuffs been placed inside the refrigerator?
The refrigerator generates noise.	● Check if the refrigerator is located on a stable, level floor and is installed correctly. Use the adjustable bolt if required to level the refrigerator. (P.4) ● Check if there is any object in contact with the refrigerator. ● Cracking sound within caused by the parts adjusting temperature which is normal.
Food becomes frozen	● Was the food placed near the cold air duct? ● If the temperature control has been set to "Max" try adjusting the temperature control to the "Min" setting. ● Has the food been placed in the chilled case?

Specifications

Model No.		NR-BD418P	NR-BD468P
Freezer Star Rating		✱✱✱	
Capacity (L) (IEC 62552)	Total	407	450
	Freezer	134	
	Refrigerator	273	316
Outside Dimensions Width x Depth x Height (mm)		685 x 698 x 1,624	685 x 698 x 1,764
Refrigerant Type		R600a	
Net Weight (kg/lb)		64 / 142	66 / 145
Cooling System		Non-frost cooling.	
Rated Voltage (V) Rated Frequency (Hz)		Refer to the rating label put at the door or the back of the cabinet.	

Panasonic Corporation

Website: <http://www.panasonic.com>

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