

## Operation Instructions

Commercial refrigerator

MODEL	Commercial refrigerator	Commercial refrigerator
	BR-1271HP (AUH)	BR-1261HP (AUH)
	BR-1571HP (AUH)	BR-1561HP (AUH)
	BR-1871HP (AUH)	BR-1861HP (AUH)



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User registration \_\_\_\_\_

When purchasing, please fill in the table below for the convenience of maintenance.

Model	
Date of Purchasing	
Purchasing Shop No.	Contact No( )

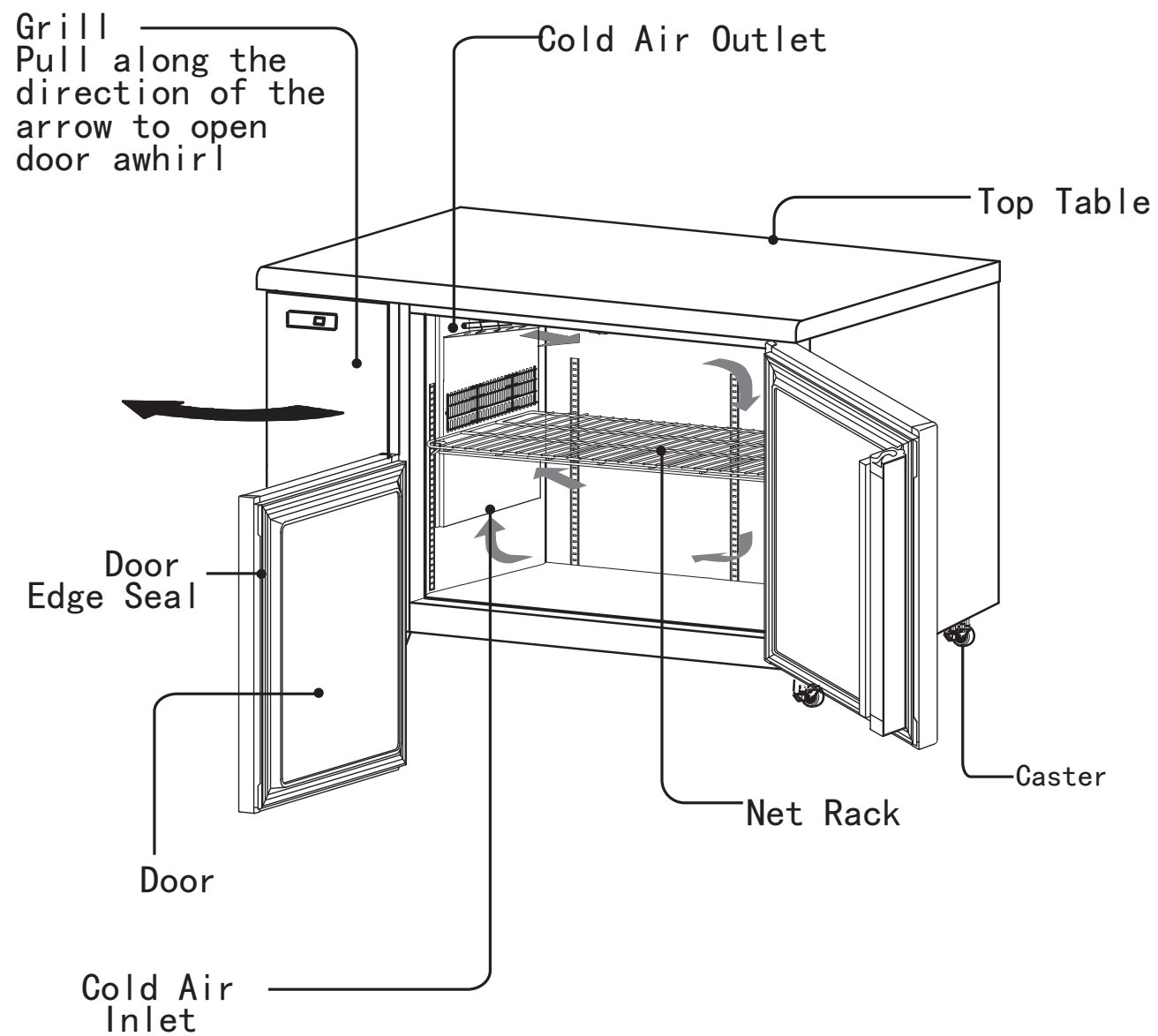
Panasonic Appliances Cold Chain (Dalian) Co., Ltd.

Add: No.6, Songlan Street, Dalian Economic and Technological Zone, China  
Made in China

8DM-6-P110-267-00

Carefully read this instruction manual before operating the product. After reading, please properly keep the operation instructions.

# I. Structure of Refrigerated Cabinet



# IX. Main Technical Parameters

Description		Commercial refrigerator		
Model Number		BR-1261HP (AUH)	BR-1561HP (AUH)	BR-1861HP (AUH)
Dimensions	Overall Dimensions (W×D×H) (mm)	1200×600(+40)×850	1500×600(+40)×850	1800×600(+40)×850
	Inner Dimensions (W×D×H) (mm)	794×437×573	1094×437×573	1394×437×573
Overall effective volume		214L	296L	377L
Overall installation dimension		1200×600×850	1500×600×850	1800×600×850
Overall operation dimension		1200×997×850	1500×1144×850	1800×1047×850
Net rack		Net rack painted with polyethylene		
Max. quantity of net rack		1		
Max. workload of net rack		80kg	100kg	L: 40kg R:80kg
Available area of refrigeration net rack		0.32m <sup>2</sup>	0.44m <sup>2</sup>	L: 0.18 m <sup>2</sup> R:0.38 m <sup>2</sup>
Rated frequency		50Hz		
Rated voltage		220-240V		
Rated current		1.4A		
Total power input		260W		
Total power input of defrosting		247W		
Rated power input of other thermoelectric element		35W	41W	57W
Performance	Condition	External air temperature is 30℃ Without load balancing and direct sunlight shining		
	Internal Temperature	Below 3℃		
Temperature Setting Range		-2~10℃		
Climate type		4		
Compressor model		NSG45NA		
Freezing Assembly	Refrigerator	See the nameplane		
	Blower	For Chiller	DC 12V 6W	
		For Condenser	DC 12V 8.4W	
Power	Power	240V~ 50Hz		
	Cord	Length	3.0 m	
		Plug	With ground terminal two-pole plug (Type I protection)	
Applicable Socket		With ground terminal two-pole plug 10A 250V		
Anti-electric shock protection category		Type I		
Material of foam layer		Polyurethane		
Foaming agent		Cyclopentane		
Weight		88kg	96kg	114kg

Note:

1. If parameters in the table change, please refer to the nameplate.
2. Loading of net rack shall not exceed the values listed in the technical parameter table, otherwise, it may render net rack to fall, causing damage.
3. Description for the meaning of climate type

Climate type code	Meaning description	
SN,N,ST,T	SN	Subtemperate zone:10℃~32℃
	N	Temperate zone:16℃~32℃
	ST	Subtropical zone:18℃~38℃
	T	Tropical zone:18℃~43℃

Table 1 (Applicable to freezer with the volume<500L)

Climate type code	Temperature and humidity condition	
	Dry-bulb temperature ℃	Relative humidity %
1	16	80
2	22	65
3	25	60
4	30	55
5	40	40

Table 2 (Applicable to freezer with the volume≥500L)

## IX. Main Technical Parameters

Description		Commercial refrigerator		
Model Number		BR-1271HP (AUH)	BR-1571HP (AUH)	BR-1871HP (AUH)
Dimensions	Overall Dimensions (W×D×H) (mm)	1200×750(+40)×850	1500×750(+40)×850	1800×750(+40)×850
	Inner Dimensions (W×D×H) (mm)	794×587×573	1094×587×573	1394×587×573
Overall effective volume		280L	393L	495L
Overall installation dimension		1200×750×850	1500×750×850	1800×750×850
Overall operation dimension		1200×1147×850	1500×1290×850	1800×1197×850
Net rack		Net rack painted with polyethylene		
Max. quantity of net rack		1		
Max. workload of net rack		80kg	100kg	L: 40kg R:80kg
Available area of refrigeration net rack		0.43m <sup>2</sup>	0.60m <sup>2</sup>	L: 0.24 m <sup>2</sup> R:0.49m <sup>2</sup>
Rated frequency		50Hz		
Rated voltage		220-240V		
Rated current		1.4A		
Total power input		260W		
Total power input of defrosting		247W		
Rated power input of other thermoelectric element		35W	41W	57W
Performance	Condition	External air temperature is 30℃ Without load balancing and direct sunlight shining		
	Internal Temperature	Below 3℃		
Temperature Setting Range		-2~10℃		
Climate type		4		
Compressor model		NSG45NA		
Freezing Assembly	Refrigerator	See the nameplane		
	Blower	For Chiller	DC 12V 6W	
		For Condenser	DC 12V 8.4W	
Power	Power		240V~ 50Hz	
	Power Cord	Length	3.0 m	
		Plug	With ground terminal two-pole plug (Type I protection)	
	Applicable Socket		With ground terminal two-pole plug 10A 250V	
Anti-electric shock protection category		Type I		
Material of foam layer		Polyurethane		
Foaming agent		Cyclopentane		
Weight		94kg	105kg	125kg

Note:

- If parameters in the table change, please refer to the nameplate.
- Loading of net rack shall not exceed the values listed in the technical parameter table, otherwise, it may render net rack to fall, causing damage.
- Description for the meaning of climate type

Climate type code	Meaning description	
SN,N,ST,T	SN	Subtemperate zone:10℃~32℃
	N	Temperate zone:16℃~32℃
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	T	Tropical zone:18℃~43℃

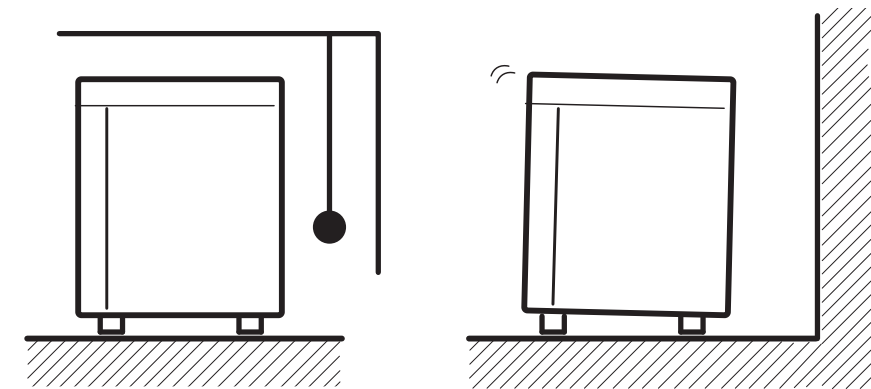
Table 1 (Applicable to freezer with the volume<500L)

Climate type code	Temperature and humidity condition	
	Dry-bulb temperature ℃	Relative humidity %
1	16	80
2	22	65
3	25	60
4	30	55
5	40	40

Table 2 (Applicable to freezer with the volume≥500L)

## II Selection of Installation Site

- Please try to avoid acid, alkali and other environments containing corrosive components. Such environment will corrode mechanical parts of products, resulting in failure.
- Please leave more than 30cm above the cabinet body space for ventilation. Please put it in a place with the ambient temperature at 5-35℃.
- Please place it in a vertical or slightly inclined backwards place for installation.
- The product shall be installed on a ground is anti-water dropping and immersion and is easy for drainage.
- Please try to avoid direct sunlight or heating appliances, otherwise it would reduce the cooling capacity.
- Do not use it in outdoor. If use it under rain, leakage of electricity electric shock and other accidents may occur. In addition, please avoid water pipe, water tank and other places that are humid or vulnerable to splash water.



## III. Matters Need Attention

### Cautions

#### 1. Danger

- Please do not put dangerous articles which are volatile, flammable or explosive into the cabinet, otherwise explosion and fire may occur.
- When abnormal matters occur, please cut off the power and stop the running, otherwise electric shock and fire may happen.
- The appliance is not to be used 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.
- Children being supervised not to play with the appliance.

## 2. Warnings

- ① Other persons apart from manufacturer and professional maintenance personnel appointed by the manufacturer shall not dismantle the cabinet to repair or transform. When parts and components are damaged or need to be changed, please contact with the manufacturer or professional personnel. In the repairing, do not transform the parts and components as well as materials of the parts and components. If wires provided as repairing parts break, please change the whole wire instead of repairing and connecting the broken wires. Incorrect operations may damage the cabinet and improper repairing may cause electric shock and fire. In the repairing and transform, parts and components of the cabinet shall be placed properly to prevent dangers caused by dropping and turning of parts and components. Repairing personnel shall wear protective equipment.
- ② Leakage protector shall be equipped and the power socket shall have reliable ground connection. Please check and confirm the leakage breaker regularly. If leakage breaker which is out of order is used, when the electricity leakage happen, the leakage breaker will not work, which will cause electric shock. Do not connect the power line and extended line with medium lines or share power with other appliances. Quick connection terminal shall be inserted and pulled out straightly and turning should be prevented. When inserting and pulling the plug, please hold the top of the plug. Pulling the wire may cause breakage of the wire, which may cause the hot wire or fire. Do not cut off the power frequently. The electric pressure of the working supplying power can float around the rated voltage. The floating range shall be  $\pm 10\%$ . The connection method of this product is Y connection. If the power line is broken, in order to prevent dangers, please inform the manufacturer and personnel in maintenance department or similar departments to change the wires.
- ③ Please do not put hands on the mechanical parts such as fans which are turning rapidly or hot pipes, otherwise you may be cut or scalded.
- ④ When cleaning the cabinet, please cut off the power, otherwise electric shock or hurts caused by fans shall happen.
- ⑤ Please do not put hands in the outlet and inlet openings of the air, otherwise damages may occur due to rapid turning of the internal fans.
- ⑥ Please do not put bottled articles or canned articles in freezing chamber, otherwise the bottle or can may be burst, which may incur damages.

## Cautions for Safety

Be sure to comply with the following

### Repairs

Disassembly or repairs should be performed by a specialty operator.



Incorrect disassembly or repair may lead to abnormal operation and causes injury, fire or electrical shock.

- Request a specialty operator to perform disassembly or repair work.
- Do not absolutely perform modification.

When abnormal operation was detected, or before starting disassembly or repair, turn off the power switch and shut off the ground fault interrupter.



Continued operation with abnormal condition, or disassembly/repair without shutting off the power would lead to current leak or short-circuit and may cause fire or electrical shock.

Specified components must be used for repair.



Use of non-specified components may cause failure of the safety stop function and lead to burst or fire.

- Consult with the distributor.

Stop the compressor before disconnecting the refrigerant piping.



Disconnecting the piping while the compressor is in operation would cause abnormally high pressure with air intake, and may lead to a burst or injury.

### Moving or Change of Installation Location

Request a specialty operator for moving or changing the location.



Incorrect installation or moving work may lead to malfunction such as abnormal vibration, and generates refrigerant gas leak, electrical shock, or fire.

**WARNING:** Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

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

**WARNING:** Do not damage the refrigerating circuit.

**WARNING:** Do not use electrical appliances inside the food/ice storage compartments unless they are of the type recommended by the manufacturer.

# Cautions for Safety

Be sure to comply with the following

## Cautions for Use

When the refrigerant bursts out, shut off the power and fully close the service valve.



Blowout of refrigerant from the refrigeration cycle by opening the service port would cause insufficient oxygen and harm human health.

Do not use flammable spray near the refrigeration unit. Do not place flammable materials nearby.



Flammable material may catch fire from switch spark.

Do not touch electrical components by a wet hand.



Switching operation by a wet hand may cause electrical shock and injury.

Before any inspection service, turn off the power switch and shut down the ground fault interrupter.



Inspection work with power on may lead to electrical shock, interference with the moving mechanism, and heat generation, thereby leading to injury and skin burn.

Periodically check operation of the ground fault interrupter.



Failed interrupter does not operate safety stop function and may lead to fire or electrical shock.

When removing the fin guard of the gas cooler, do not touch the fin.



Touching the fin and sliding along the fin may cause skin cut by the fin edge.

Do not ride on the refrigeration unit.



Riding on the refrigeration unit or placing an article on it may lead to falling or dropping by vibration and cause injury.

Do not operate with the service valve closed.



Operation with the high pressure service valve closed would cause abnormal high pressure and may lead to a burst.

Periodically check the installed base.



Damaged base after a long-time use may cause the refrigeration unit to fall or drop and lead to injury.

## Disposal

Request a specialty operator for disposing the refrigeration unit.



Disposal with the refrigerant and oil inside the refrigeration unit may cause fire or explosion.

- ⑦ When the product will not be used for a long term, please pull out the plug or cut off the power for your safety, otherwise hot cabinet or fire may happen. Please take all things in the cabinet out and clean the cabinet. Please open and dry the cabinet to prevent the cabinet from corrosion. Please put the product in a place where children will not play. Take measures such as paste materials such as wood and so on between the door and main body of the cabinet to guarantee that the door will not closed and seal the cabinet.
- ⑧ When cleaning and picking filter net of the condenser, please do not touch the fins of the condenser directly with hands, otherwise you may be hurt.
- ⑨ For fluorescent lamp with two plugs, the same fluorescent pipes shall be used when changing the pipes and the changing shall be taken by professional personnel. The power should be cut, that is to say pull the power plug out.
- ⑩ When closing doors with locks, please confirm that nothing besides the stored things is in the cabinet before locking the door, in case children are locked into the cabinet. Please put the key in safe place.
- ⑪ Material of foam layer. Material of foam layer is flammable. Pay attention to the warning of "Watch out Fire" on the cabinet.
- ⑫ The external LED must be replaced by the same kind of LED and replaced by professional staff, and the power cut-off operation is required which is remove the power plug.
- ⑬ Before moving the freezer or the refrigerator, the cabinet must be emptied. Otherwise, all the consequences will be on your own.

### 3. Attentions

- ① When disposing of this refrigerator, remove the door/door seals and door latch so that small children or animals cannot become trapped inside. Children should be supervised to ensure that they do not play with the appliance. If trapped inside, a child may get hurt or suffocate to death. If trapped inside, the child may become injured and suffocate to death. Cyclopentane is used in the insulation. The gases in the insulation material require a special disposal procedure. Please contact your local authorities in regard to the environmentally safe disposal of this product.
- ② If the product breaks down, food in the cabinet may go bad.
- ③ Please do not take food or containers from freezing chamber when your hands are wet, especially the metal containers, otherwise hurt may be caused.

- ④ Do not carry the product with hands. Please contact with agency shop and professional personnel. Please pull the power line off and do not scratch the power wire. If the power wire is damaged, electric shock or fire may be caused. Please take out the stocks and retainers, for the dropping of these things may cause hurt for people. Please pay enough attention to the dropping of the cabinet, otherwise hurt may be caused.
- ⑤ Do not pour water on the cabinet, otherwise short circuit or electric shock may happen.
- ⑥ Do not throw things in the net rack, otherwise the dropping of the net rack may damage the cabinet.
- ⑦ The transportation and packing tearing shall be carried out by professional personnel with protective equipment.
- ⑧ Before transferring the cabinet, please pay attention to that:
- (1) When the packing and rubber belts are removed, the packing and dismantled nails shall be disposed by professional personnel. Please open the door of the cabinet to change the air.
  - (2) The cleaning has been completed before the packing and please clean the inside part of the cabinet again.
  - (3) Before using the cabinet, please connect to the power for an hour to confirm that the refrigeration runs normally.
- ⑨ Fixation of the cabinet. Most cabinets in this series use the fixation legs. When the product is put in the arranged position, it is not easy to move it. For supporting of cabinets of special models, mobilizable legs can be used. Before using the cabinet after the cabinet is placed in the arranged position, the legs shall be adjusted to locking situation, otherwise the cabinet will move easily and damage other things or hurt people.
- ⑩ Please pay attention to the following content before putting foods in the cabinet:
- (1) Before storing the foods, please pay attention to the validation period of the foods. The foods which are put firstly shall be taken out firstly.
  - (2) Hot food cannot be put in before it becomes cool to prevent that the quality of the surrounding food is reduced.
  - (3) Please put the food in sealed bags or other sealed containers to prevent that the flavor is mixed and the food is dried.
  - (4) This product is suitable for materials for pastry,
- ⑪ Energy Saving
- (1) The opening times and closing times of the door of the cabinet shall be as less as possible. The time when the door is open shall be as short as possible. The door should be sealed.

## Cautions for Safety

Be sure to comply with the following

### Electrical Work

Always use a dedicated circuit and install a ground fault interrupter.



Incorrect electrical work may lead to current leak and fire or electrical shock.

- Wiring work should conform to the installation instructions.

Grounding Work



Lack of grounding work may lead to electrical shock caused by current leak.

- Securely carry out grounding work by qualified technicians.

Electrical wiring should use the specified cable and to be properly secured.



When the specified cable is not used, or connection or securing is incomplete, electrical resistance becomes larger and may cause abnormal heating or fire.

- Use the specified cable and properly secure it on an appropriate location.

Securely place the cover on the electrical box and enclosure panel.



Incomplete attachment may lead to penetration of water and living creatures, thereby causing current leak and fire/electrical shock.

- Confirm that covers are securely installed.

### Cautions for Use

Do not change the set values of the safety device.



Using the refrigeration unit with changed values may cause failure of the safety stop function and lead to a burst or fire.

- Do not change the set values of the safety device. If they are changed unintentionally, shut off the power switch and ground fault interrupter and consult with the distributor.

Do not insert a finger, stick or foreign object into the ventilation opening and fan guard of the enclosure panel.



Such object may hit the fast rotating fan and result in injury.

When the ground fault interrupter activates, report to the specialty company.



Forced recovery of power may cause current leak, leading to fire or electrical shock.

When water or other material gets into the electrical box, turn off the power switch and shut off the ground fault interrupter.



Continued use may cause short-circuit, leading to fire or electrical shock.

- Do not splash water on electrical components or wash them with water.

For the purpose of controlling concentration of refrigerant gas, install a leak detector and mechanical ventilation equipment in the refrigerant-handling facility (inside the room).



Refrigerant gas leak may cause suffocation.

# Cautions for Safety

Be sure to comply with the following

## Caution

### Installation Work

Do not install in a place with possible leak of flammable gas.



Leaked flammable gas around the refrigeration unit may catch fire from a spark of a switch and lead to fire.

Produce a refrigeration cycle within the limits of an operation standard (Scope of Application).



Non-standard refrigeration cycle may generate abnormal high pressure and abnormal heat generation, thereby causing burst, smoke generation, fire and current leak.

Apply a drain work according to the need.



Without consideration of drain water processing, moisture from rainwater and defrosted water generates mold and moss, and may cause slipping on the floor.

Apply heat insulation on the suction line and liquid line.



Lack of heat insulation generates water from condensation and mold and moss, thus causing slipping on the floor.

Install in a place without air stagnation.



Leak of refrigerant gas may cause insufficient oxygen and harm human health.  
● Install in a place with good ventilation.

Request a specialty operator for moving the refrigeration unit.



Incorrect moving may cause falling or dropping of the refrigeration unit, and cause injury.  
● Refrigeration unit is a heavy item.  
Always consult with a specialty operator.

### Electrical Work

Always install a ground fault interrupter with the specified capacity.



Incorrect capacity does not operate safety stop function and may lead to fire or electrical shock.

Do not include electrical wiring in the heat insulation material.



Condensation of piping may cause current leak and fire caused by overheating.

### Precautions for R290 refrigeration system maintenance

- 1) This product uses R290 refrigerant, which is flammable and explosive. Only manufacturer or professional maintenance personnel approved by the manufacturer shall carry out maintenance.
- 2) The maintenance area shall be well ventilated, more than 5m away from the fire source, and fire extinguishers and other fire-fighting equipment shall be prepared.
- 3) During maintenance, release the refrigerant first, cut the copper pipe with a pipe cutter to release, and the release position is aligned with the air outlet of the ventilation equipment.
- 4) After the release, it needs to stand for more than 20 minutes, or blow out the residual refrigerant in the system with nitrogen. It is forbidden to blow the system with compressed air.
- 5) After welding, fill 1.57mpa nitrogen for leak detection. After leak detection, make it vacuum and fill refrigerant.
- 6) When sealing, clamp the tail pipe tightly with forceps (the clamping position is 40mm away from the welding junction of the compressor, and the clamping degree is subject to no refrigerant leakage), and then seal and weld the pipe orifice.
- 7) After the sealing welding is completed, the welding gun shall be extinguished immediately.

- (2) Set suitable temperature. If the refrigeration temperature is not proper, waste will be caused.

### Instructions

#### 1) Parameters setting

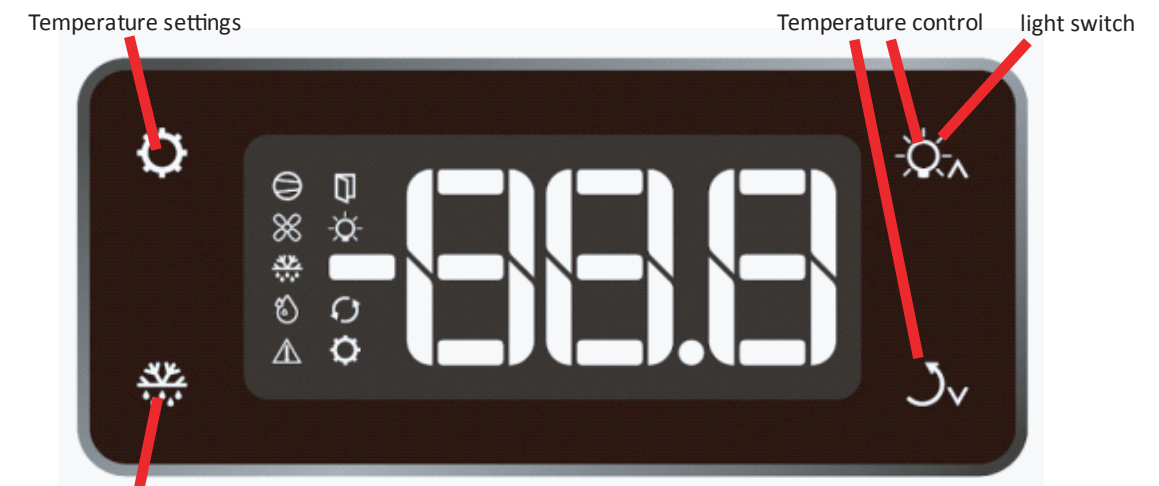
St will display in 3 seconds after press , then press again to show St parameters. Press or to adjust temperature and press to apply changes. Settings will be automatically applied after 30 seconds if no further operation.

#### 2) Forced defrosting

Keep pressing for more than 3 seconds to start defrosting (Evaporator temperature should be lower than the defrosting termination temperature and the overheat protector is not triggered).

#### 3) Lighting

The light will be on when power-on by default setting, pls press to turn on & off.



Apply defrost settings & parameters

Range of temperature setting Refrigerated cabinet: -2~ 10℃  
【Indicating Lights Instructions】

Indicator	Symbol	Status	Description
Compressor		on	Compressor on
		off	Compressor off
Fan motor		on	Fan motor on
		off	Fan motor off
Malfunction		on	Malfunction occurs
		off	No malfunction
Setting		on	Parameter setting
		off	Observe and control
Defrosting		on	In process of defrosting
		off	Defrosting completed
Defrost dripping		on	In process of defrost dripping
		off	Defrost dripping completed
Lighting		on	Lighting on
		off	Lighting off

If any situation in the following table occurs, please make examination according to the corresponding item.

Indication	Instructions	Examination Key Point
rH	The temperature in the cabinet is 12°C higher than the set temperature, and the operation under this temperature has kept on for more than two hours. The indicated temperature is the temperature in the cabinet.	① Whether the door is closed? ② Whether hot food is put in?
rL	The temperature in the cabinet is 1°C lower than the set temperature, and the operation under this temperature has kept on for more than two hours. The indicated temperature is the temperature in the cabinet.	Whether frozen foods are put in the cabinet which are melting?
CH	The temperature of the export for the condenser is more than 63°C and the condenser has operated under this temperature for more than 90 minutes. The indicated temperature is the temperature in the cabinet.	① Whether the filter net is blocked? ② Whether the surrounding temperature is too high?
CP	The temperature of the export for the condenser is more than 70°C	

If reason above are excluded and the operation of the cabinet is not normal or the temperature is indicated as H1,H2,L1,L2 it is considered that the heat detector or other parts are abnormal. When this kind of problem occur, please contact with the retailer or consult in the customer's service window.

## 2. On Defrosting

The cabinet makes use of heater strip to defrost. Microcomputer will control the defrosting time. When the defrosting is carried out, the temperature in the cabinet is indicated as [dEF]. The refrigeration will restart again automatically five minutes after the defrosting is finished. (With ten minutes after the defrosting has finished, in order preventing the temperature in the cabinet from increasing, the cooling fan will not run.)

## VII Parts

	BR-1261HP (AUH) BR-1271HP (AUH)	BR-1561HP (AUH) BR-1571HP (AUH)	BR-1861HP (AUH) BR-1871HP (AUH)
Net rack	1	1	1 small net racks 1 big net racks
Support	5	5	9

## VIII. Safety Cautions / Warnings

### Cautions for Safety

Be sure to comply with the following

For the purpose of avoiding harm to people and damage to properties, items to be complied with are explained here.

■ Explanations are classified by degree of harm or damage caused by incorrect use.

	<b>Warning</b>	Indicates possibility of death or serious injury.
	<b>Caution</b>	Indicates possibility of minor injury or damage to properties.

■ Items to be observed are explained by the following pictograms.

	Indicates what you should not do.
	Indicates what you must do.

### Warning

#### Installation Work

Request a specialty operator to perform installation by conforming to the installation instructions.



Incorrect installation work may lead to malfunction such as abnormal vibration, and generates refrigerant gas leak, electrical shock, or fire.

Do not use other than the designated refrigerant (for charging, adding or recharging)



Non-designated refrigerant may cause equipment failure or burst, or injury.

Installation should be made securely on a place that can fully support the mass of the refrigeration unit.



Insufficient foundation may cause falling or dropping, and lead to refrigerant gas leak, injury, electrical shock, or fire.  
● Refrigeration unit should be secured on a concrete base with a mass approximately 3 times that of the unit and fastened with anchor bolts.

Securely complete refrigerant piping before carrying out airtight testing.



Refrigerant gas leak may cause suffocation.

Install the safety cover.



Touching the refrigeration unit by hand of the people other than the designated operators may cause injury.  
● Install a safety cover or protective fence.

Perform airtight test before charging refrigerant.



Refrigerant gas leak may cause insufficient oxygen and lead to a death accident.  
● Carry out airtight test and confirm no leak of refrigerant.

Piping, equipment components and tools should be exclusively for R744 (CO<sub>2</sub> refrigerant).



Use of components for HFC refrigerant may cause serious accidents such as equipment failure and rupture of the refrigerant cycle.



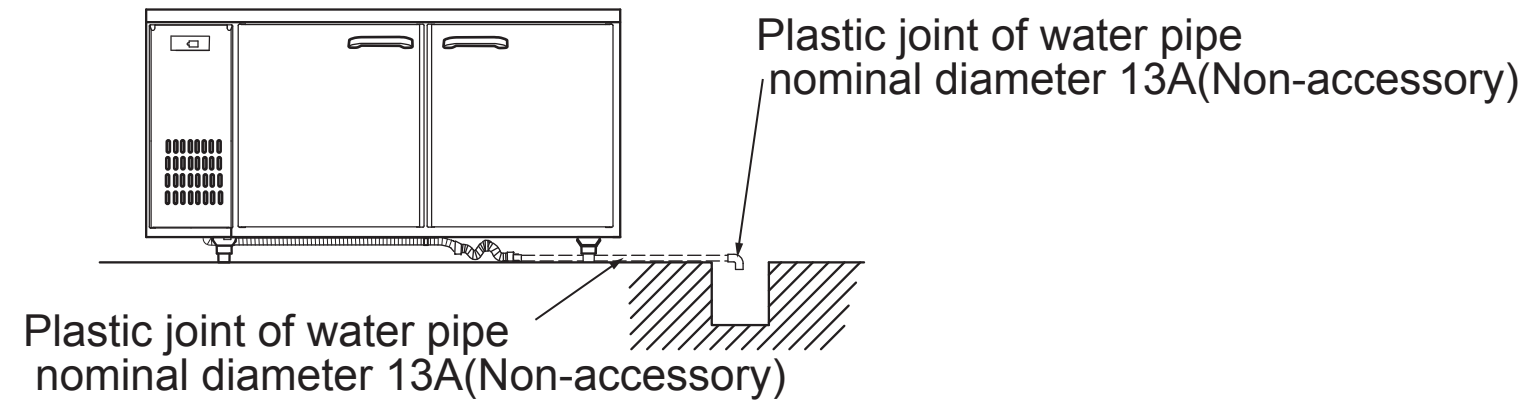
## VI. General Failure and Inspection

If the performance becomes bad in the progress of use, please check the following items!

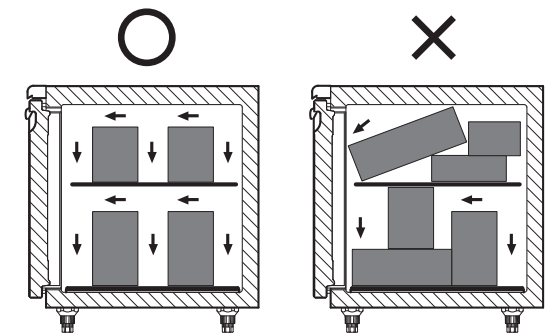
Fault phenomenon	Key point for inspection
Not cold at all	<ul style="list-style-type: none"> <li>• Whether power fails or not.</li> <li>• Whether the power line plug is inserted in the power socket or not.</li> <li>• Whether the leakage circuit breaker works or not (under the condition of being installed with leakage circuit breaker) .</li> </ul>
Bad cooling effect	<ul style="list-style-type: none"> <li>• Whether the temperature setting is appropriate or not.</li> <li>• Whether the food blocks the cold air outlet and inlet or not.</li> <li>• Whether too much food is put in or not.</li> <li>• Whether the cabinet door is opened too frequently or open or not.</li> <li>• Whether the filter screen of condenser is too dirty or not.</li> </ul>
Too loud sound	<ul style="list-style-type: none"> <li>• Whether the adjustable food contacts with the ground or not.</li> <li>• Whether the back contacts with the wall or not.</li> <li>• Whether the basin or other container falls around or not.</li> </ul>
Condensation (Outer surface)	<ul style="list-style-type: none"> <li>• In the continuous hot weather, condensation may form on the outer surface. The reason is that in the case of high temperature, condensation forms on the surface when the moisture in the air contacts with cold substance. This is not a failure. When such phenomenon occurs, use a dry cloth to wipe clean.</li> </ul>
Cabinet door cannot close	<ul style="list-style-type: none"> <li>• Whether the cabinet door edge is clamped or not.</li> <li>• Whether the product leans forward or not.</li> </ul>

When defrosting, the temperature in the cabinet will increase in some degree, which has little effect on the temperature of foods. Therefore, it is not necessary to take the foods in the cabinet out.

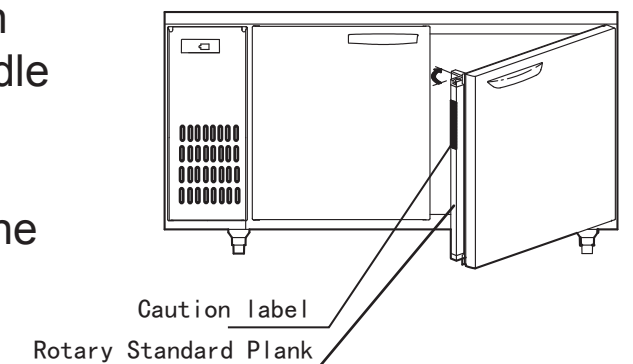
When defrosting, the water flowing from the sides of the units will be discharged from the accessory exhaust water pipe. If there is no outfall near the cabinet, please connect the exhaust water pipe with other pipes and drain the water to the outfall. During the defrosting or after the defrosting for a short time when the temperature is the highest, the largest indication or largest measurement value of the temperature sensor is  $-3.2^{\circ}\text{C}$ .



3. Method of Application  
Please pay attention not to block the channel for cool air and guarantee that the cool air can cycle smoothly.



For products with mobile middle column, when the door of the cabinet is closed, please pay attention to the warning label in the mobile middle column. If the label is not towards to the cabinet, please turn the mobile middle column for  $90^{\circ}$  and the close the door.



## IV. Cleaning and Maintenance

Please keep the refrigerated cabinet clean.

- Cleaning of cabinet body

Use a cloth moistened with mild detergent to wipe off the dirt, then use a cloth moistened with water to wipe, and lastly wipe dry with a dry cloth. Do not use cleaning powder, acids, volatile oil, gasoline, thinner, boiled water and other substances that can cause material damage.

- Filter screen of condenser

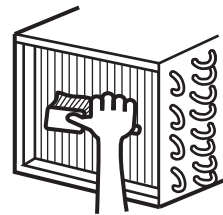
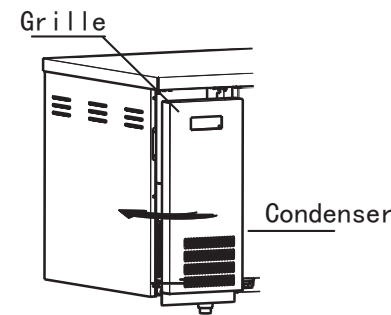
Remove it 1~2 times every month for cleaning. When it is very dirty, please use the neutral detergent to clean.

1. Firstly dismount the fastening screw when the baffle is open. The filter screen can be dismounted by lifting the grilled door.
2. When the filter screen is dismounted, firstly lift it and then take it out.

- Condenser

Clean once every half a year according to the sequences as shown below.

1. Disconnect the power plug from the socket.
2. Hold the under part on two sides with hand and pull forward, turn a little and lift up to remove it.
3. Use the brush to brush from top to bottom, thoroughly brushing the dust. If the condenser filter is removed for cleaning, do not directly touch the condenser fin, which may cause injury.



- Door seal

If continue to use it under the condition that it is stained with lactic acid bacteria beverage or seasonings, door edge will be damaged. Do not forget to clean the door edge and the surface contacted with edge.

- After the maintenance completes, the following inspection shall be made for safety.

1. Whether the power line plug is completely inserted in the power socket or not. Whether there is abnormal heating phenomenon or not.
2. 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.

## V. About After-sale Service

When request, please make sure the following items

Description . . . . .	Showed on the nameplate
Purchase date and designation . . . . .	Recorded in the guarantee
Status of failure . . . . .	Knowing the detailed about the failure
Address, name and TEL number . . . . .	Let targeted person known
Interview date . . . . .	Please let we know your free time

1. Free warranty period: As the product is used as commercial equipment, warranty period of the complete machine is twelve months since the day of installation, acceptance and delivery or the day that the customer begins to use.
2. If the machine fails by complying with the instructions for use and operative precautions, please dial our toll-free number to report for repair.
3. Within the warranty period, the company provides free repair for the products supplied or products of affiliate enterprise. If it cannot be repaired, new parts shall be timely replaced for free.
4. Within the warranty period, if one of the following circumstances occurs, we will provide pay-needed maintenance.
  - ① Components of the product damage or are lost when the customer is responsible for transportation.
  - ② Customers carry, install, operate, transform or conduct maintenance without complying with the Operation Instruction.
  - ③ The machine is left unused for a long time during the warranty period so that corrosion, damage, loss, etc. generate
  - ④ Due to customer's own causes.
  - ⑤ Failure or damage, such as fire, abnormal voltage, flood etc. caused by force majeure.
  - ⑥ Do not purchase invoice or change and alter invoices without permission.
  - ⑦ Consumables are not covered by the warranty, such as fluorescent lamp, display lamp, starter, battery of temperature display, glass and so on.