

# Reach-In Refrigerator

## OPERATING INSTRUCTIONS

Read these operating instructions carefully before using the machine



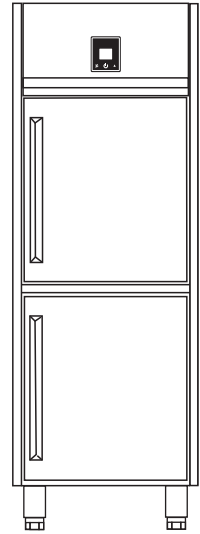
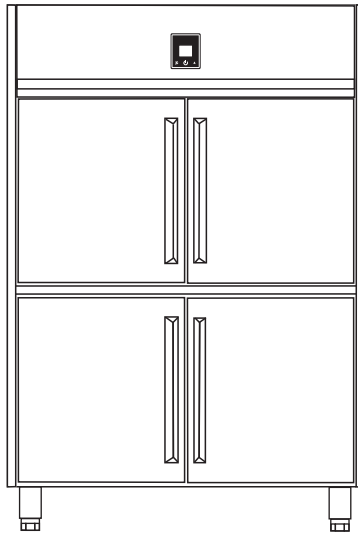
## Models

### Low-temperature

L-P(R)W6 Series

L-P(R)W7 Series

L-P(R)W8 Series

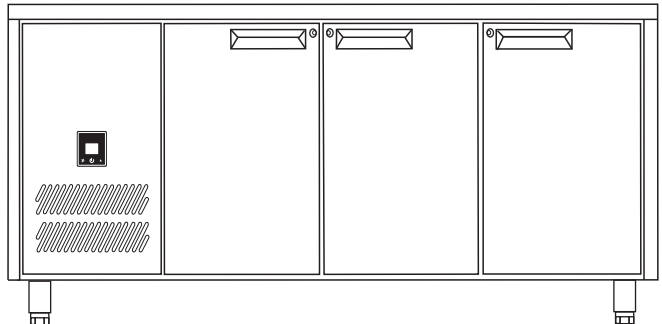
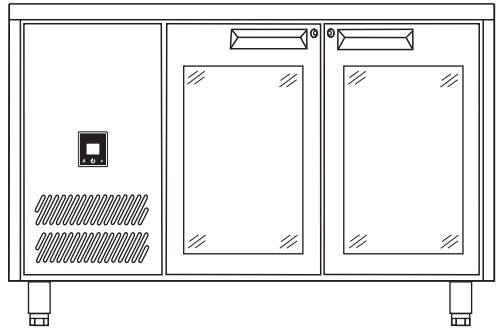


### Medium temperature

M-P(R)W6 Series

M-P(R)W7 Series

M-P(R)W8 Series



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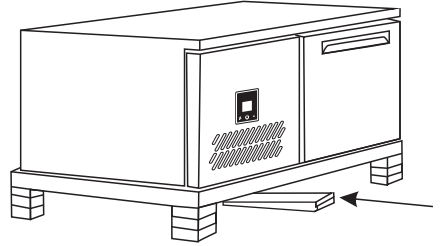
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# 1. SAFETY INSTRUCTIONS

- Please carefully read this manual before installation and use.
- This product is used for storing foods rather than gasoline, flammable or explosive goods, or corrosive materials or liquids.
- Be sure to cut off power supply before maintenance and cleaning.
- Avoid water directly flowing into the electric components.
- Foods shall not be placed over the yellow max. line and shall be placed uniformly, the max. weight of each shelf of 30KG.
- Installation, troubleshooting and repair of the relevant appliances and condensing units must be performed by the manufacture's professionals.
- If without supervision or guidance by experiential personnel, any one having impedimental body, sense or spirit or lacking of experience or knowledge or children can not use this product.
- Children shall be monitored if playing nearby, to prevent risk.
- The scrapped product shall be disposed by the relevant authority.

- Do not move the wooden pallet before placing the refrigerator on the final destination. When the forklift is used to transport the equipment, do not directly impact the bottom of machine. (Fig. 1)

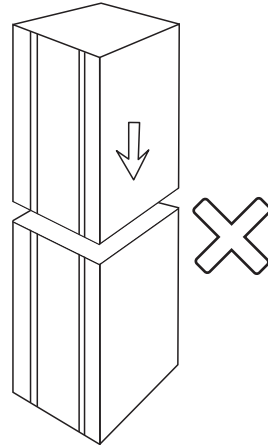
Fig.1



## 2.2 Storage

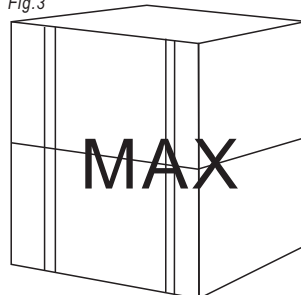
- The machine can not be stacked up. (Fig 2)

Fig.2



- Do not store more than 2 machines stacked on top of one another (Fig. 3)

Fig.3



# 2. INSTALLATION AND OPERATION

## 2.1 Transportation

- Please keep the packing upward during transportation. Any excessive lean would cause oil to cooling circuit so that compressor would break down or degrade performance.
- If the machine is non-vertical during transportation, you must make the machine remain vertical for 24h in order to let oil backflow to compressor.

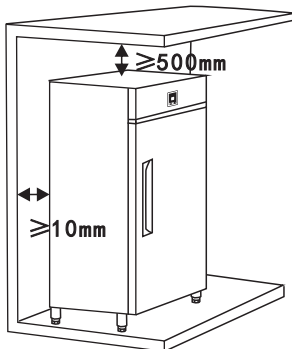
## 2.3 Unpacking

- Please unpack before installation, then check whether it is broken because of transportation. If there is any problem, please take a photo and inform transport company to apply for indemnity.
- Ensure to deal with packing material according to current regulations. We recommend to hold the packing to use in the future.

## 2.4 Refrigerator installation

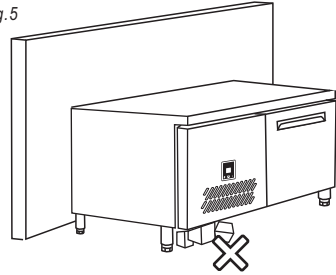
- Ensure that the refrigerator placing position is stable and solid enough.
- The product shall be placed on the cool and dry, and flat position having well air ventilation rather than the place with direct solar radiation or near the higher hot resource.
- Ambient temperature should be ranged 5~35°C.
- Refrigerator must be well ventilated. Refrigerator shall be placed at the place where the operation is easy to carry out.
- $\geq 10\text{mm}$  shall be kept between rear of P(R) W8 series refrigerator and wall, with  $\geq$  about 500mm from the ceiling.(Fig.4)
- A certain distance shall be kept between the P(R)W6 or P(R)W7 series refrigerator and wall. Do not pile sundries under it.

Fig.4



- $\geq 10\text{cm}$  shall be kept between rear of the product and wall. Do not pile sundries under it. (Fig. 5)

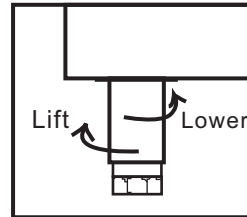
Fig.5



! Attention: Too high ambient temperature or poor ventilation will reduce the cooling effect of the product, Refrigerator unit can not be directly watered.

- Refrigerator shall be placed stably.
- Inclination angle of refrigerator can not exceed 45°.
- For adjustment of refrigerator supporting legs, please refer to the following figure, with max. Adjusting amount of 200mm.
- Height adjustment: Clockwise rotate the legs to lift and counter clockwise rotate them to lower.

Fig.6

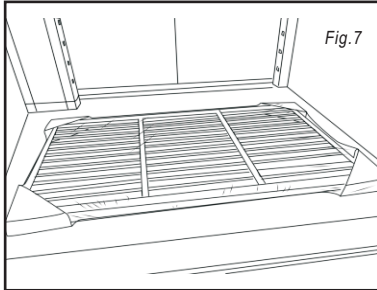


! Warning: Refrigerator shall be placed horizontal for 6 hours before connection with power supply.

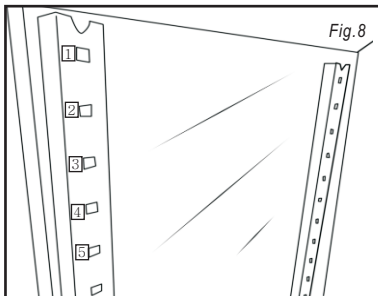
## 2.5 Shelves installation

By considering the safe transport, shelves will not be mounted at the normal position when shipment. User shall install them according to the following steps:

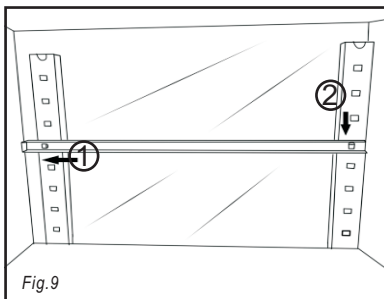
- Remove the shelf protective package. (Fig.7)



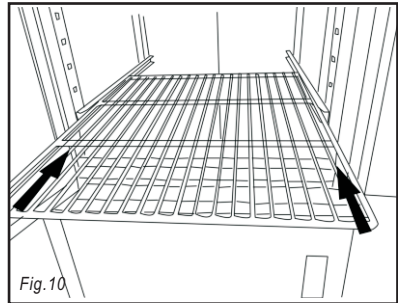
- Ensure that all backing strips are mounted at the same horizontal plane with the supporting strips, and they can be positioned according to the number on the supporting strips. (Fig.8)



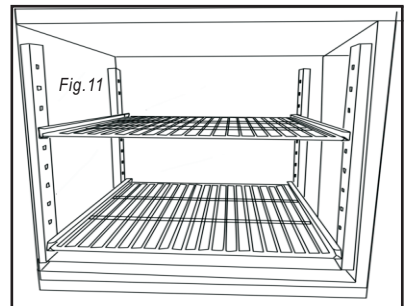
- Remove the shelf backing strips from the plastic belt. For installation, closed end shall be located at rear and open end at front. ① First push the backing strip backwards to make its rear buckle on the rear supporting strip. ② Lift the front end of backing strip slightly and then buckle it on the front supporting strip downwards. (Fig.9)



- Place the shelves into the refrigerator. (Fig.10)

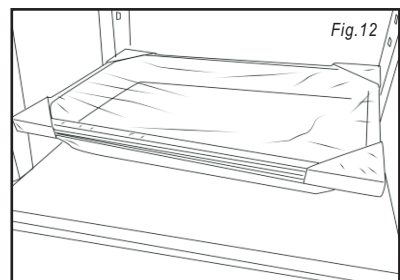


- After installation, shelves are shown in figure. (Fig.11)

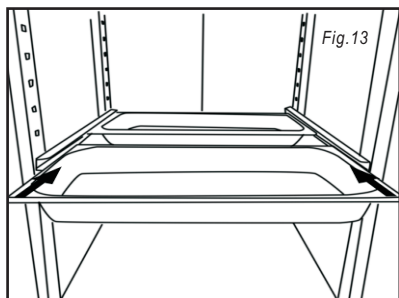


## 2.6 GN pan

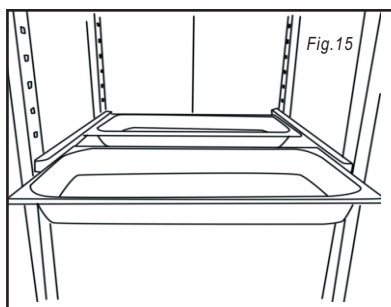
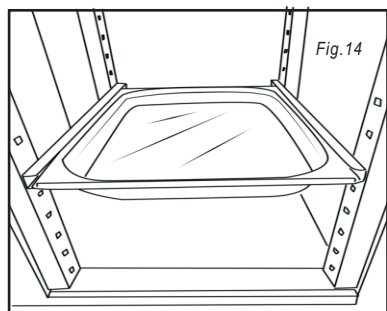
- Remove the GN pan protective package. (Fig.12)



- Place the GN pan into the refrigerator. (Fig. 13)



- Specifications of GN pan:  
GN 1/1 for P(R)W6T series. (Fig. 14)  
GN 2/1 for P(R)W7T and P(R)W8U series. (Fig. 15)



*It is recommended that the GN pan using to store foods.*

## 2.7 Place foods

*In order to ensure well cold air circulation, do not place the foods against the inner wall of refrigerator.*

Fig. 16

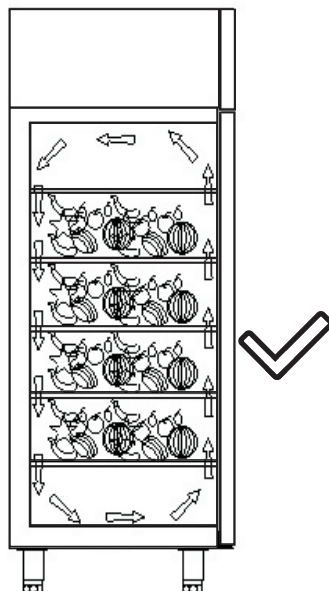
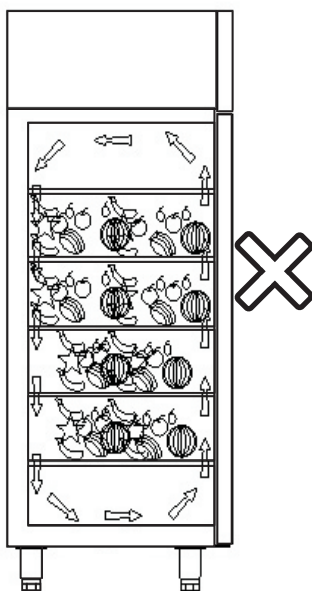
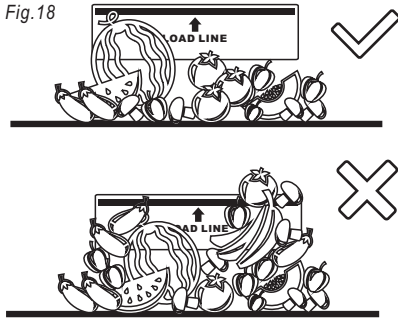


Fig. 17





- Please do not place foods excess the load line and place foods evenly. The load capacity of each shelf is 30kgs. (Fig. 18)



- ! Do not place the food over max line of four centimeters of the refrigerator with drawer.

## 2.8 Power connection

Under any situation, do not cut off or remove three-pin plug.

Refrigerator shall be close to the power supply as nearly as possible.

All refrigerators shall be connected with proper power supply. Before connecting the power supply, please refer to label inside of refrigerator door.

Insert the power plug into the power socket well grounded in accordance with the power supply safety regulation.

In case of failure of power supply, please restart the compressor after five minutes to prevent damage. Any damage of compressor due to low voltage will not be included within the warranty range.

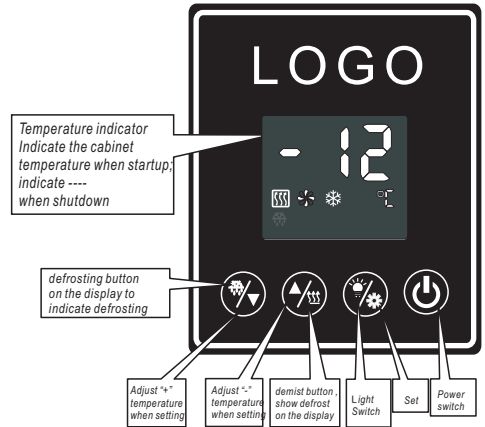
The power wire shall be replaced by the manufacturer's special repair personnel or experienced professionals, to prevent risks.

- ! **Warning:** Do not use power board! Do not connect many equipments with the same power socket, or any caused product problem will not be included within warranty range!

## 3. OPERATION

*Recommend:* Before storing any food, it is recommended that refrigerator compressor shall be running until to the setting temperature. During this compressor running period, you can check the power wire connection and whether the equipment are mounted properly for any damage caused in the transport process.














### 3.1 RK625, RK626 temperature controller illustration




### 3.1.1 Functions Description of Keys




Functions description of keys under normal working condition:

- **Startup:** Press the power switch button for 3s.
- **Shutdown:** Press the power switch button for 3s.
- **Set Temp:** Press for 3s, the set temp. slash, and then press or to adjust the temperature. After without pressed any key for 6s, it will return to display working temp. display.
- **Manual demisting:** Press for 3s to enter the demisting model; Press for 3s again to exit.



- **Manual defrosting:** Press  for 3s to enter the defrosting model; Press  for 3s again to exit.
- **Parameter setting:**
  - Press the button  for 6s which would display "PAS", and then press  or  key to input correct password (The factory default value is 15 or 45, when input 15, it will display parameter code from E2~C2, while input 45 it will display code from C3-AA).
  - Press  to confirm and display the parameter code.
  - Press  or  key to adjust parameters.
  - Finishing adjusting, press  to return to parameter code, and then press  or  key to select other item.
  - Press  to confirm. You can adjust items in such a circle way.
- **Illuminating** Press  for 1s, the light is on, press the button again, the light will be off


 **Notes:** If the password is wrong, that could not change but only view parameters.

### 3.1.2 How to operate temperature controller

- Press the key  for 3s to show and flash preset temp. (such as "-22") on the display, and then press  or  to adjust the temperature value; if the key is released for 6s without pressing any key, the refrigerator will save the set temp. automatically, and display working temp. again.
- The temp. hysteresis of refrigerator is 4°C. When the working temperature reaches the preset value (such as -22°C), compressor will stop. When temperature rises to (-18°C), compressor will run again.

### 3.1.3 Defrosting

- **Defrosting:** The frost layer thickness of evaporator inside the cabinet will be determined by the refrigerator according to the automatic accumulative time. When the preset defrosting time reaches (the factory default time is 4h), refrigerator will enter the defrosting mode. At this time, the defrosting indicator on the temperature control panel will be on and refrigerator will enter the defrosting process. When defrosting is ended, the defrosting indicator will be off and refrigerator will be back to the previous working state automatically.
- **Manual defrosting:** Press  for 3s to enter the defrosting model; Press  for 3s again to exit.

 **Attention:** Manual defrosting shall be performed only defrosting sensor temp. is lower than 0°C.

### 3.1.4 Parameter List

Rk625: Factory default value of Set temp. is -2°C

Parameter	Function	Range	Default
PAS	Password	0~100	15
E1	Lower setpoint limit	-45°C~SET	-2°C
E2	Higher setpoint limit	SET~45°C	20°C
E3	Temperature hysteresis	1~10°C	4°C
E4	Delay time of starting machine	3~8min	3min
E5	Temperature probe adjustment	-5~+5°C	0°C
E6	Defrosting probe adjustment	-2~+2°C	0°C
F0	Defrost Type	0~0	0
F1	Defrost Time	1~60min	20min
F2	Defrost Duration	0~24h	6h
F3	Defrost stop temp	8~45°C	8°C
F4	Display when defrosting	= 0 Display normal temp. = 1 display temp. when the defrost start	1
C1	Compressor stop time when Failure mode	5~10min	5min
C2	Compressor working time when Failure mode uptime	5~10min	10min

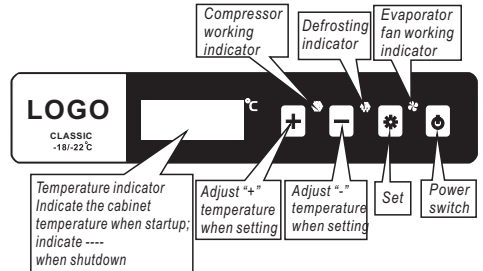
Parameter	Function	Range	Default
C3	Debug Switch	= 0 Debug Switch Off = 0 Debug Switch On	0
C4	Compressor start delay time	1~100s	30s
A1	Min. opening of electronic valve	15~50	42
A2	Max. opening of electronic valve	50~150	100
A3	Adjust Period above 0°C	1~10s	5s
A4	Temp. Difference of electronic valve adjustment	1~5°C	3°C
A5	Starting. opening of electronic valve	35~150	50
A6	Adjust Period during 0°C~15°C	10~20s	15s
A7	Adjust Period below -15°C	1~60s	30s
A8	Normal. opening of electronic valve	35~80	45
A9	Temp. hysteresis of electronic valve adjustment	1~5°C	4°C
AA	Opening of defrosting electronic valve	15~100°C	45
P1	Gear 1 of heated glass	0~10	5
P2	Gear 1 of heated glass	0~10	5
P3	Gear 1 of heated glass	0~10	5

### Rk626: Factory default value of Set temp. is -18°C





Parameter	Function	Range	Default
PAS	Password	0~100	15
E1	Lower setpoint limit	-45°C~SET	-25°C
E2	Higher setpoint limit	SET~45°C	0°C
E3	Temperature hysteresis	1~10°C	4°C
E4	Delay time of starting machine	3~8min	3min
E5	Temperature probe adjustment	-5~+5°C	0°C
E6	Defrosting probe adjustment	-2~+2°C	0°C
F0	Defrost Type	1~1	1
F1	Defrost Time	1~60min	60min
F2	Defrost Duration	0~24h	4h
F3	Defrost stop temp	8~45°C	15°C
F4	Display when defrosting	= 0 Display normal temp. = 1 display temp. when the defrost start	1
F5	Fan motor running type	= 1 Running all the time = 0 Running with the compressor(Except defrosting)	1
F6	Drip time	0~10min	2min

Parameter	Function	Range	Default
F7	Fan motor running type after defrosting	= 0 Running after delay = 1 Running according to the temp.	0
F8	Fan motor running type after defrosting	0~10min	2
F9	Fan motor running temp. after defrosting	-20~20°C	-8°C
C1	Compressor stop time when Failure mode	5~10min	5min
C2	Compressor working time when Failure mode uptime	5~10min	10min
C3	Debug Switch	= 0 Debug Switch Off = 0 Debug Switch On	0
C4	Compressor start delay time	1~100s	30s
A1	Min. opening of electronic valve	30~50	42
A2	Max. opening of electronic valve	50~150	100
A3	Adjust Period above -10°C	10~30s	15s
A4	Temp. Difference of electronic valve adjustment	0~5°C	1°C
A5	Starting. opening of electronic valve	15~150	45
A6	Adjust Period during -10~-20°C	20~40s	30s
A7	Adjust Period below -20°C	40~60s	50s
A8	Normal. opening of electronic valve	35~80	45
A9	Temp. hysteresis of electronic valve adjustment	1~5°C	3°C
A0	Adjust Period above 0°C	1~10s	5s
AA	Opening of defrosting electronic valve	15~100	35




### 3.2 RK605, RK606 temperature controller illustration



### 3.2.1 Start-up and shut down the refrigerator



- **Startup:** With the power supply connected, temperature control display will show “----”, press the power switch button  to display “ON”; and then press the power switch button  to start the refrigerator. When the evaporator fan is working, its working indicator will be on and compressor working indicator will flash, and compressor will work after the delay time of 2~3minutes. At this time, the indicator will be constantly on and temperature, and the display will show the working temp..
- **Shutdown:** Press the power switch button  to display and flash “OFF”, and then press the power switch button  again to stop the refrigerator, with “----”displayed.

### 3.2.2 How to operate temperature controller

- Press the Set key  to show the flashing work temperature (such as “-18”) on the display, and then press  or  key to adjust the temperature value; if the key is released for 5-10s without pressing any key, the refrigerator will save the setting temperature automatically, with the working temperature displayed again.
- The temp. hysteresis of refrigerator is 4°C. When the working temperature reaches the preset value (such as -22°C), compressor will stop. When temperature rises to (-18°C) , compressor will run again.








### 3.2.3 Defrosting

- **Defrosting:** The frost layer thickness of evaporator inside the cabinet will be determined by the refrigerator according to the automatic accumulative time. When the preset defrosting time reaches (the factory default time is 4h), refrigerator will enter the defrosting state. At this time, the defrosting indicator on the temperature control panel will be on and refrigerator will enter the defrosting process. When defrosting is ended, the defrosting indicator will be off and refrigerator will be back to the previous working state automatically.

**Manual defrosting:** Press  for 3s to enter the defrosting model; Press  for 3s again to exist.

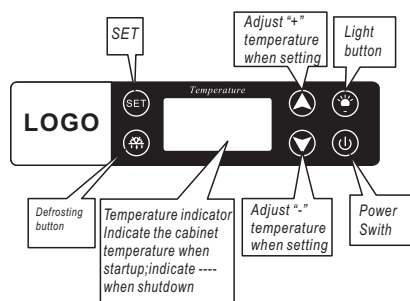
**!** Attention: Manual defrosting shall be performed only defrosting sensor temp. is lower than 0°C

#### Key description:

-  Long press: Check the defrosting probe temperature.
-  Long press: Enter the manual defrosting model.
-  Set
-  Long press: to start the machine
- Long press  and , and then short press  to recover the factory values.

**!** **Attention:** When power is supplied after failure, refrigerator will enter the previous working model automatically. That is, if the machine is shut down before power failure, the refrigerator will not work after powered on; if working before power failure, refrigerator will work automatically after powered on. If the machine is out of service for a long time, please shut down it in according with the shutdown procedure, and then cut off the power supply.

### 3.3 RK305L temperature controller illustration



- **Set temp.** (the temp. to stop the compressor) adjustment:  
Press **SET** key to show set temperature and then press **▲** or **▼** key to adjust the value. Press **SET** key to exit adjustment status then show working temperature. If you don't press any key for 6s, it would recover to show working temperature and confirm setting.
- **Startup /shut down:** Press **⏻** key for 3s to stop refrigerating, and the working temp. will not be displayed, only showing "----", stopping all the control output (Illuminating is still valid.) Then press **⏻** key for 1s, displaying measuring temperature and start to refrigerate after delay time.
- **Refrigerating indicator light:** Refrigerating light would be on during process of refrigerating and refrigerating light would be off under temperature constant state. Refrigerating light would flash during the process of delay.
- **Defrosting indicator light:** Defrosting indicator light would be on during defrosting while it would be off when exiting defrosting.
- **Fan motor indicator light:** When fan motor operate, the fan motor indicator light would be on and when fan motor stop working, the light would be off.
- **Manual defrosting/ stop defrosting:** Press **❄️** key for 6s continuously to start or stop defrosting.
- **Illumination:** Press **☀️** key to illuminate, and then press key to stop illuminating.

## 4. CLEANING AND MAINTENANCE

### 4.1 Interior and exterior cleaning

- Before cleaning, please cut off the power supply.
- Before use, please clean the interior and exterior of refrigerator.
- The soapy warm water is used to clean (do not use flammable or toxic substance for cleaning). During cleaning process, wring dry the cloth to prevent water from flowing into the electric component to cause short circuit.
- Do not use cleaning tool, or stainless steel surface will be scratched.

### 4.2 Condenser cleaning

In order to ensure the cooling effect of refrigerator, condenser must be regularly cleaned to prevent dust or grease accumulation, at least every three month or depending on the working environment in kitchen.

#### Cleaning method:

The hard brush is used to remove dust etc. dirties accumulated on the condenser or fan; do not damage the fins.

### 4.3 Door seals cleaning

In order to ensure good sealing of refrigerator, door seals shall be often cleaned.

**! Warning:** Please cut off the power supply before cleaning. During cleaning process, prevent water from flowing into the electric components.

## 5. MAINTENANCE INSTRUCTIONS

Refrigerators in our company are used electronic expansion valve. User shall vacuumize and fill refrigerant according to the following steps or refrigerator can not work.

### 5. 1 Vacuumizing preparation

The following steps must be observed:

1. Screw out thimble nut , and the top of needle should be opened for 30s to make pipeline system equal to atmosphere pressure. (Fig. 19)

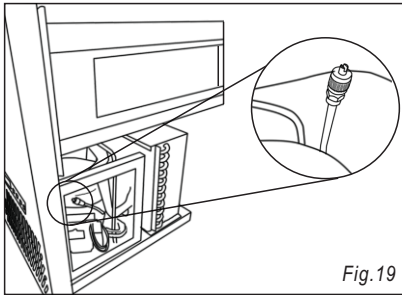


Fig.19

2. Take off wires of compressor.
3. Pull out air returning temp. sensor from fixed tube, and hold it with hands to increase the temperature.
4. Connect with power to startup and release sensor when refrigeration light is from flashing to lightening for 5min. (Fig. 20)

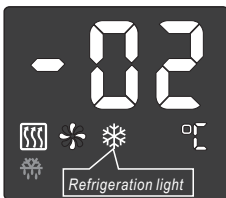


Fig.20

### 5. 2 Vacuumizing and filling refrigerant

1. Join up vacuum pump and begin to vacuumize.
2. Fill refrigerant according to variety and amount on the nameplate.

### 5. 3 Test

1. Fix air returning temp. sensor as before.
2. Connect wires around compressor.
3. Connect power line to work.

**!** Refrigerant in refrigerating system and gas in thermal insulation shall be professionally handled. Before handling, ensure no problems in refrigerating system. Please handle the machine according to authority.

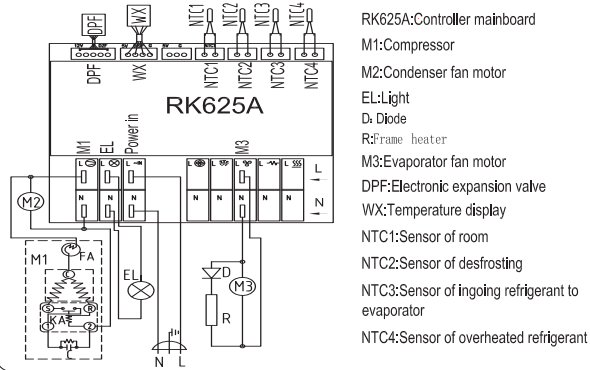
## 6. TROUBLESHOOTING

If found that the refrigerator can not work normally, please find out the cause according to the following table.

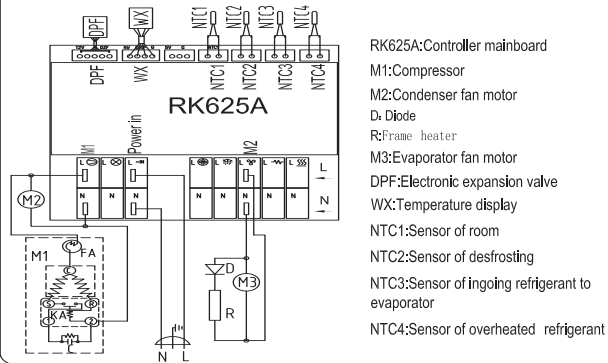
Failure	Cause	Solution
Poor cooling effect	Poor ventilation	Check whether the mounting position is well ventilated
	Door is opened frequently or door can not be well closed	Check the door state
	Condenser is clogged	Clean the condenser(filter)
	Foods are too hot or foods loading capacity exceeds the max. load line	Check food placement
	Evaporator is clogged by too much frost	Manual defrosting
		Adjust the defrosting period
		Cover the foods having large water content with a preservative film
	Temperature improperly set	Re-set the temperature
Ambient temperature is too hot	Improve the ventilation conditions and add the sun shade and thermal insulation device	
Defrosting solenoid valve was damaged	Repair	
Refrigerator can not work	Power failure; Poor plug contact; Voltage is too low;	Check the power socket; Change the socket; Voltage shall comply with rated voltage shown on the nameplate
Noise is too large	Check whether the refrigerator is placed on the uneven ground	Place on the stable ground
	the refrigerator supporting legs are at different height	Adjust the height of supporting legs by knob
	Check whether there are impurities entering into the condenser	Check the condenser and clean the dirties
	Screws are loose	The screw shall be tightened
Odor from refrigerator	Refrigerator is not cleaned for a long time	Clean the interior of the machine
	Odor foods are not properly packed	Odor foods shall be sealed and packed before storage
Alarm	Display SO or SC, with "beeps" buzzing sound issued	Cabinet temperature sensor failed
	Display ER1, with "beeps" buzzing sound issued	Evaporator liquid inlet sensor
	Display ER2, with "beeps" buzzing sound issued	Evaporator suction inlet sensor
	Display ER3, with "beeps" buzzing sound issued	Evaporator temperature inlet sensor
	Display ER4, with "beeps" buzzing sound issued	Door can not be closed tightly within 3 minutes or door open circuit was damaged

## 7. BASIC WIRING DIAGRAMS

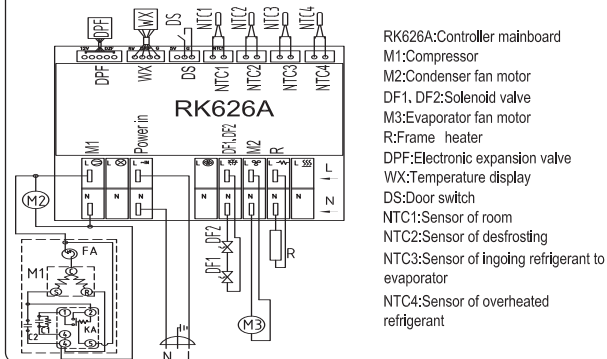
Wiring diagram for stainless steel chiller with glass door (M-W6T, M-W7T, M-W8U)



Wiring diagram for stainless steel chiller with solid door (M-W6T, M-W7T, M-W8U)

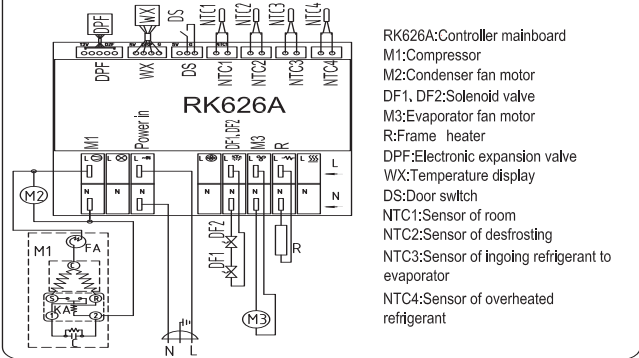


Wiring diagram for freezer (L-W8U2)

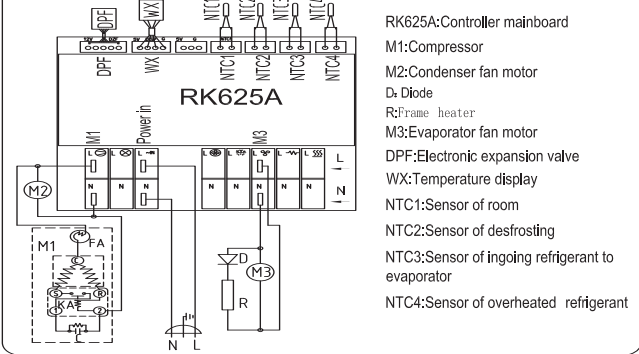




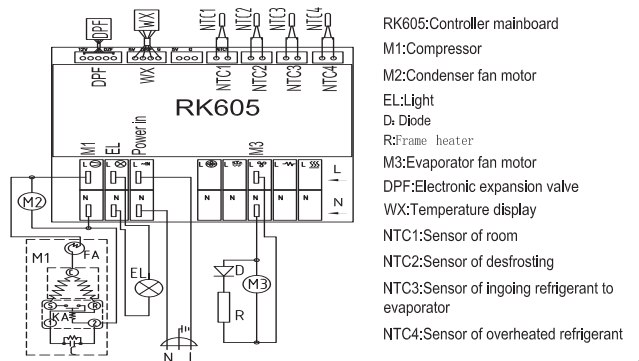
Wiring diagram for freezer(L-W6T, L-W7T, L-W8U1)



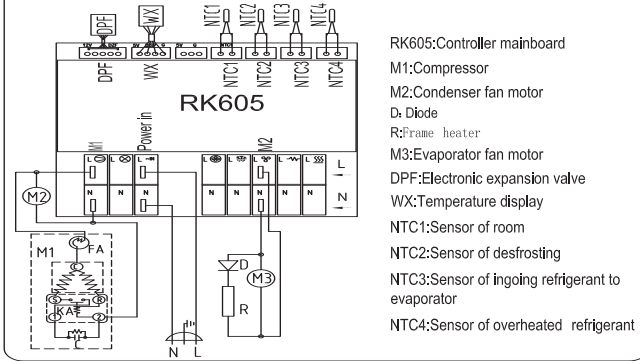
Wiring diagram for stainless steel chiller with glass door without light (M-W6T, M-W7T, M-W8U)



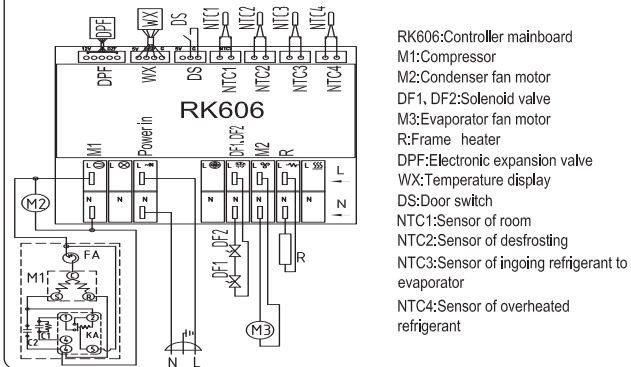
Wiring diagram for stainless steel chiller with glass door (M-W6T, M-W7T, M-W8U)



Wiring diagram for stainless steel chiller with solid door (M-W6T, M-W7T, M-W8U)



Wiring diagram for freezer(L-W8U2)



Wiring diagram for freezer(L-W6T, L-W7T, L-W8U1)

