



# **DEHUMIDIFIER**

## **USER'S MANUAL**

**CFO-12E CFO-20E**

# Contents

- Before using your dehumidifier, please read this user's manual carefully, in order to ensure correct and safe use. After reading the manual, make sure it is stored in a safe place for future reference if necessary.

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## Structure and Principle

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### ● Features

<b>Powerful dehumidifying capability</b>	<b>Excellent drying laundry function</b>
Taking advantage of refrigeration principle, the dehumidifier powerfully removes partial moisture from air to drop the humidity of the room and keep indoor air dry and comfortable.	The dehumidifier dries laundry quickly. This can prevent laundry and furniture from becoming damp and musty in a rainy season.
<b>Quiet operation</b>	<b>Drainage tank with a large capacity</b>
When the dehumidifier operates in QUIET mode, the value of its noise is so low and makes your room quiet.	The drainage tank capacity is large to 6 liter, this will reduce the times of your discarding water.
<b>Using refrigerant for protecting environment</b>	<b>Saving energy</b>
The dehumidifier uses the no CFC refrigerant for protecting environment to reduce to pollute environment.	The power consumption is low.

# Structure and Principle

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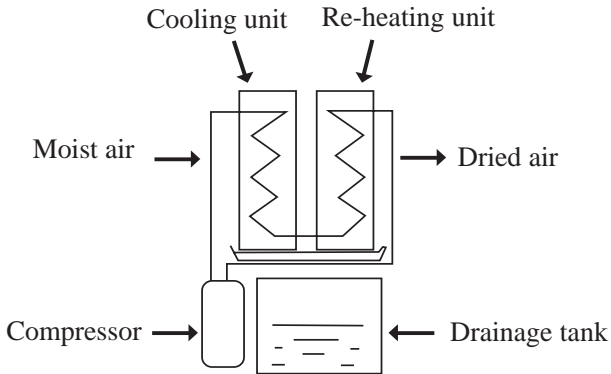
## ● Specifications

Model	CFO-12E	CFO-20E
Power Supply	220 ~ 230V, 50Hz	
Dehumidifying Capacity	12L/day	20L/day
Power Consumption	220W	400W
Drainage Tank Capacity	6.0L(automatic stop at about 5.5L)	
Weight	12.5kg	14kg
Dimension(height × width × depth)	545mm × 380mm × 261.5mm	

- The dehumidification capacity is the value obtained after the dehumidifier was continuously run in the room temperature of 30°C with the relative humidity 80%.
- The amount of dehumidification is the amount per day(24 hours.)
- If specifications are changed without notice for further improvement, they are data on nameplate of the unit.
- The work temperature is in the range 2°C to 38°C. If the room temperature is beyond the range, the unit can not operate normally.
- working temperature range of maximum charge dehumidifying:35°C DB/26°C WB.

## Structure and Principle

### ● How dehumidifying works



- ① It draws in room air, cools it with a cooling unit, and changes the humidity to drops of water.
- ② The drops of water fall into a drainage tank.
- ③ The dehumidified air is re-heated by a heating unit and discharged.

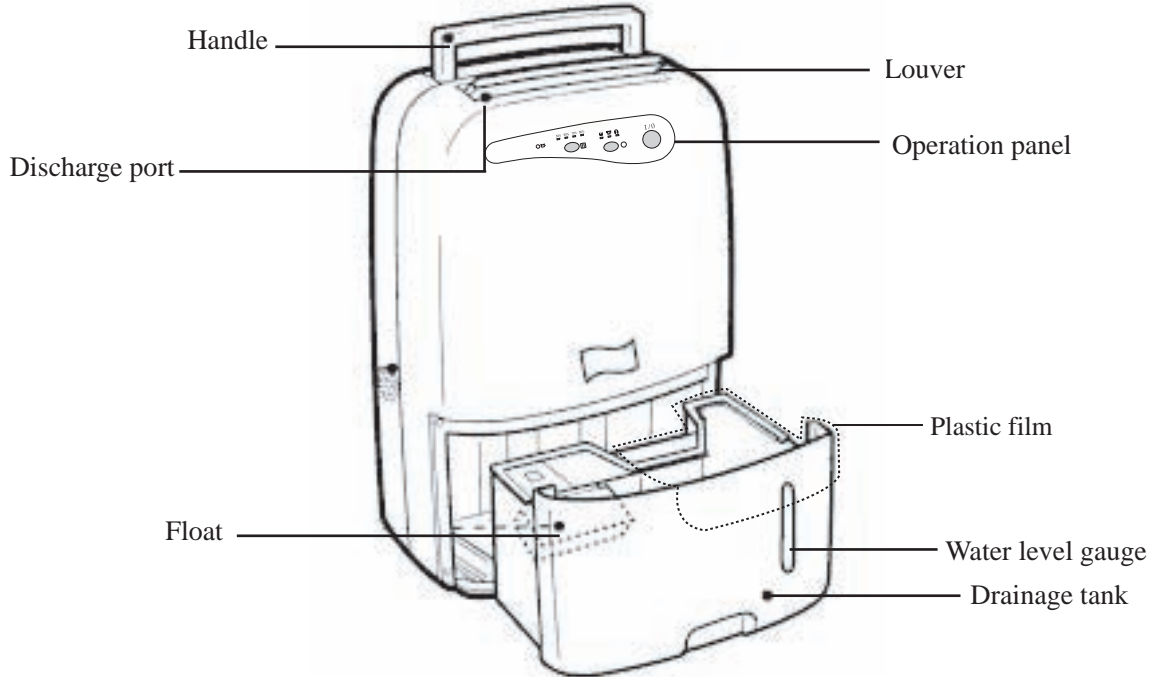
Steps ①, ②, and ③ are repeated to remove humidity from the room.

- After the air passes through the re-heating unit, its temperature will rise a little, so that the temperature of the room will rise appreciably. This is normal phenomenon.

# Structure and Principle

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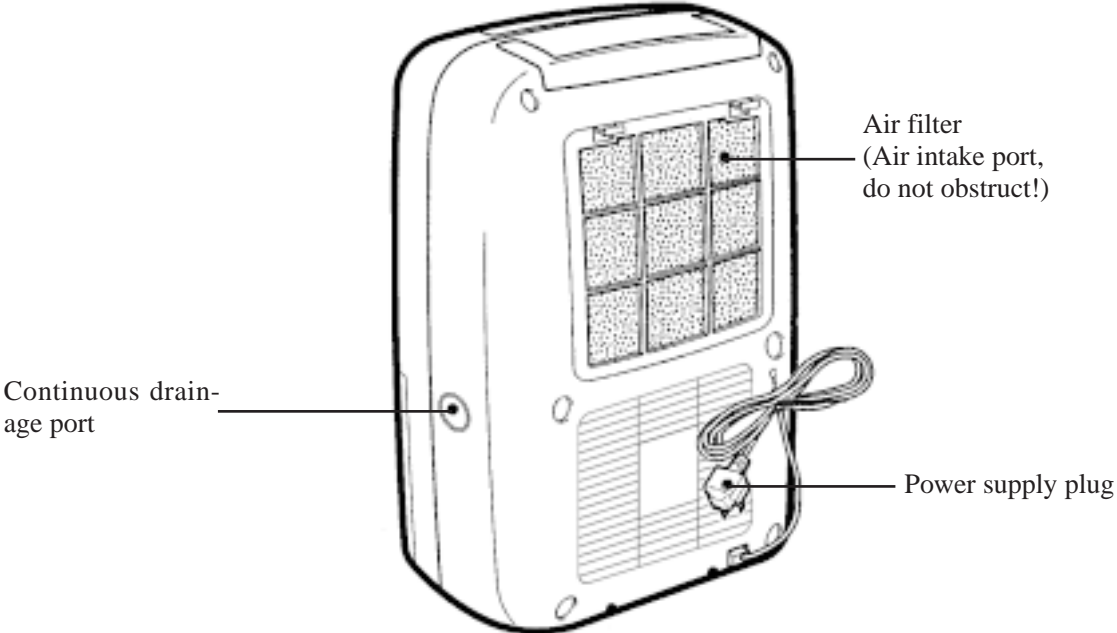
## ● Structure of dehumidifier



*NOTE: Please take off the plastic film before using.*

# Structure and Principle

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# Operation

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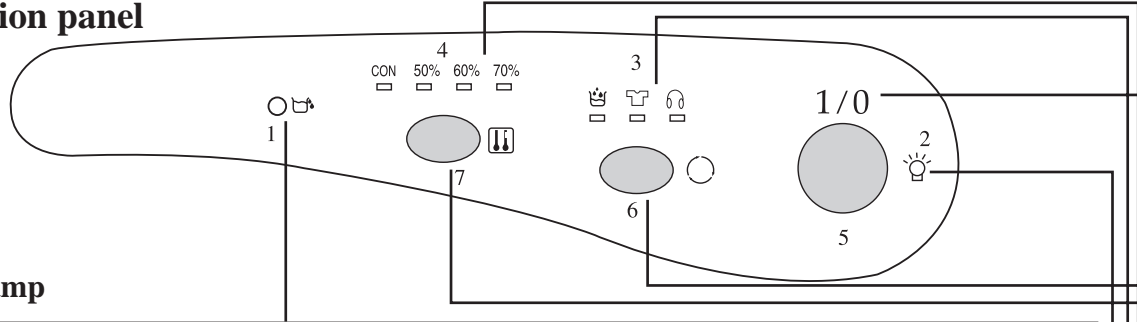
## Operation steps:

1. Plug the power supply plug into the outlet.
2. Open the louver by hand.
3. Press the power switch.
4. Select operation mode or let it run in the default mode.
5. Press the power switch once again to stop operation.



# Operation

## ● Operation panel



### Indicator lamp




#### 1. Tank full indicator lamp

It will light when the drainage tank is full or positioned incorrectly. Empty the water out of the drainage tank, and make sure the tank is positioned properly.

#### 2. Power indicator lamp

It will light when the unit is plugged in.

#### 3. mode indicator lamp

When “” lamp or “” lamp or “” lamp is lighted, it respectively indicates that operation is in DEHUMIDIFY, LAUNDRY or QUIET mode.

#### 4. Humidity indicator lamp

When “50%” lamp, “60%” lamp or “70%” lamp is lighted, it respectively indicates that the current setting humidity is “50%”, “60%” or “70%”.

“CON”: Continuously dehumidify indicator lamp

When “CON” lamp is lighted, it indicates that the operation is in CONTINUOUS mode.

## Operation


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### ● Switch function

#### 5. “ 1 / 0 ” switch

Press the switch once to start operation, press it again to stop operation.

#### 6. “ ” switch

Each time the switch is pressed, the operation mode changes in the order of “DEHUMIDIFY”, “LAUNDRY” and “QUIET” and the corresponding mode indicator lamp will change with the operation mode. The default is “DEHUMIDIFY”. when the indoor temperature is above 35°C, the protection device is actuated, the unit only can operate in LAUNDRY mode and pressing “  ” switch is ineffective.


#### 7. “ ” switch

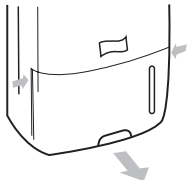
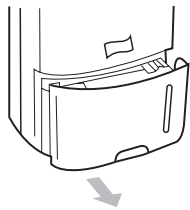


Press the switch to set the humidity of the room, which can be set in order of “50%”, “60%” “70%” and “continuous”, the default is “continuous”.

When the relative humidity of the room is lower than your setting humidity, the operation will stop automatically.

# Operation

## ● Draining the water

If the drainage tank becomes full (approx. 5.5 liters), the “” lamp lights to alert the user, operation stops automatically. Empty the water from the drainage tank and discard it.

Drainage steps	Notation for drainage
<p>1. Remove the drainage tank Lightly pressing on the sides of the tank with both hands, pull it gently out.</p>  <p>Take hold of the handle, and then remove the tank, discard the water.</p> 	<ul style="list-style-type: none"><li>• Do not remove the bubble packing from the float on the unit, in order to prevent water from leaking from the water tank onto household furniture. This can cause electrical shock and/or short-circuiting.</li><li>• If the drainage tank is dirty, wash it with cold or lukewarm water. Do not use detergent, scouring pads, chemically treated dustcloths, gasoline, benzene, thinner, or other solvents to clean it, as these can scratch and damage the tank and cause water to leak.</li><li>• When place back the drainage tank, press the tank firmly into place with both hands. If the tank is not positioned properly, the  Tank Full  sensor will be activated, and the dehumidifier will not operate. Check to make sure the guards are firmly attached to the tank. If they are not, the drainage tank will be harder to remove.</li><li>• Wait at least 30 minutes before removing the drainage tank, in order to prevent the water which still in the cooling unit from dripping out on the base plane. (If water has dripped, wipe it up.)</li></ul>

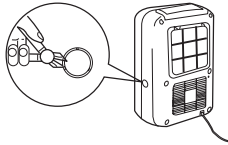
# Operation

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## ● Draining the water

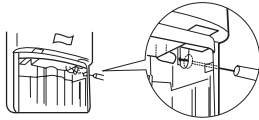
### Continuous drainage of water

The unit has a continuous drainage port. Using a commercial hose (with an inner diameter of 15mm), the water in the drainage tank can be continuously drained out of the continuous port of the unit. When setting up the equipment for continuous drainage, always stop operation first and unplug the power supply plug.



#### **1. Disconnect the drainage tank and open the continuous drainage port.**

Use nippers or a similar tool to cut away the continuous drainage port in the side of the main unit.



#### **2. Push the hose into the continuous drainage port**

Pass a commercial hose (with an inner diameter of 15mm) through the continuous drainage port, and press it firmly into the drainage port in the main unit, make sure water does not leak. The level height of drain piping should always be not higher than the one of the drainage port, also drain piping should always be not plugged up, so the condensed water can be drained out successfully.



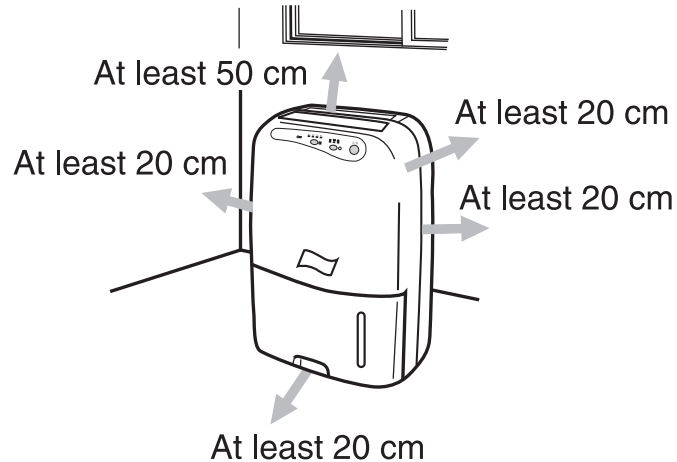
#### **3. Return the drainage tank to its original position**

Check the hose periodically to make sure it is still connected and has not been obstructed.

## Operation

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**Make sure at lease some place is provided around it when the unit is operating.**



### **Note:**

Please stop working and discard the water before move the dehumidifier. Tilt it within range of 30 degrees.

# Maintenance

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## ● Caring for the dehumidifier

### Clean the air filter

The air filter should be cleaned approximately once two week. First, Remove the air filter, then run a vacuum cleaner lightly over the surface of the air filter to remove dirt. If the air filter is very dirty, wash it with warm water and a neutral cleaning solvent and dry it thoroughly, attach the airfilter.

## ● Storing the dehumidifier

### When the unit is not to be used for a long period of time

1. Fold up the power supply cord and secure it to the holder.
2. Discard any water left in the drainage tank and wipe away any remaining drops with a cloth.
3. Clean the air filter.
4. Store the unit  
Package the unit to keep it free of dust, and keep it upstanding and store it at a cool and dry place.

# Maintenance

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## ● Notation for safe operation

**When use the unit, please observe the following safety precautions:**

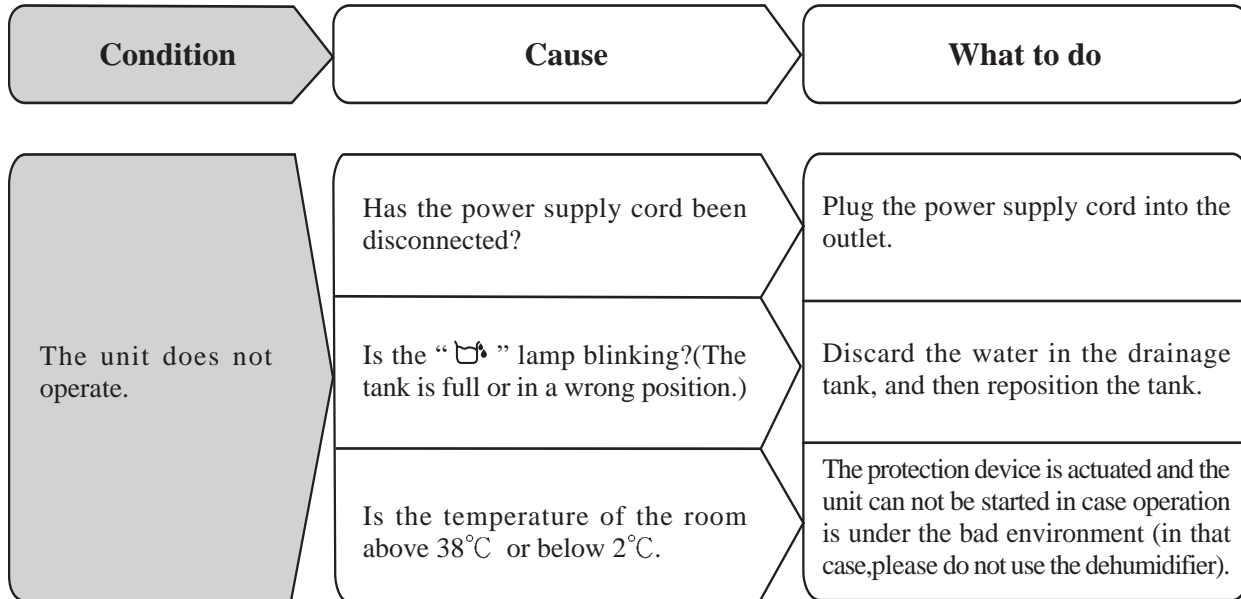
1. When the unit works in LAUNDRY mode, keep it an appropriate distance away from the clothings, and prevent the water from dropping onto it.
2. Before clean the unit or when do not use it for along period of time, unplug the power supply cord.
3. Do not wash the unit with water also put the unit close to water, explosive or flammable things.
4. Do not set the unit close to heat-generating devices or near inflammable and dangerous article.
5. Never put your fingers or objects into the intake or discharge ports.
6. Do not sit or stand on the unit.
7. Discard water that has collected in the tank timely.
8. Do not run the dehumidifier in an closed area such as inside closets, or fire can take place.
9. Do not use the unit for special purposes such as edible items, objects of art or scientific materials are stored.
10. Install drain piping in a downhill grade to make sure that condensed water can be drained continuously.
11. If the supply cord is damaged, it must be replaced by the manufacture or its service agent or a similarly qualified person in order to avoid a hazard.

# Maintenance

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## ● Removing breakdowns

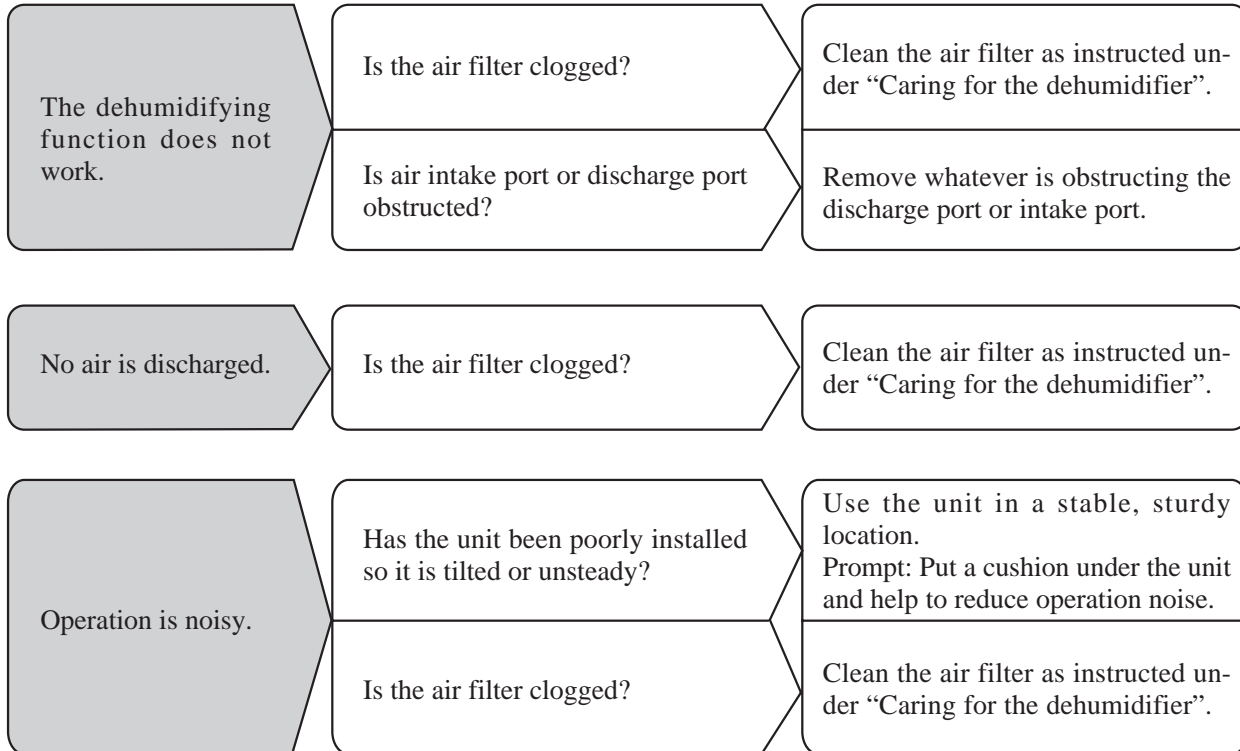
If a condition listed below occurs, please check the following items to help you to save your time and cost.





# Maintenance

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- After the above condition has occurred and corresponding step is used but the breakdown can not be removed or other breakdown occurs, please contact the authorized service centers.

# Maintenance

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## ● Removing breakdowns

The following symptoms do not indicate a breakdown

Symptom	Reason
The operation noise suddenly increases during use.	The operation noise increases when the compressor is activated.
The humidity do not drop.	Is the room too big for the unit? Are windows or doors opened and closed frequently? Is there a device in the room such as a kerosene stove, which emits steam?
Very little dehumidifying takes place, or none takes place.	This happens if the temperature and/or humidity of the room is low.
When the unit is first used, the discharged air smells musty.	Because the temperature of the head exchanger rises abruptly, an unusual or musty odor may be produced for a moment.

## Maintenance

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The unit echoes.

If the unit is used in a room with wood flooring or in a small room, it may echo.

When operation is started or the operation mode is changed, an unusual noise is heard in main unit.

The refrigerant may take some sound until circulation stabilizes.

There are some stains left in the drainage tank.

This is water left from the dehumidifying test conducted at the factory, it does not indicate a problem.

The unit only can run in laundry mode and it is ineffective to press mode switch.

When the temperature of the room is above 35°C the protection device is actuated, so that the unit only can run in LAUNDRY mode( the fan speed is high).

The fan is running and the compressor does not work.

If the unit is started within 3 minutes after the unit stops, the protection device is actuated, so that the compressor is started automatically after a delay of 3 minutes; or the automatic defrosting operation is activated and the compressor stops.

# APPENDIX

## ● Electric Schematic Diagram

