

# **OPERATION MANUAL**

# **IFIN** System air conditioner

#### **MODEL**

RXYQ72TTJU **RXYQ72TYDN** RXYQ96TTJU **RXYQ96TYDN** RXYQ120TTJU RXYQ120TYDN RXYQ144TTJU RXYQ144TYDN RXYQ168TTJU RXYQ168TYDN RXYQ192TTJU RXYQ192TYDN RXYQ216TTJU **RXYQ216TYDN** RXYQ240TTJU RXYQ240TYDN RXYQ264TTJU RXYQ264TYDN RXYQ288TTJU RXYQ288TYDN RXYQ312TTJU RXYQ312TYDN RXYQ336TTJU RXYQ336TYDN RXYQ360TTJU RXYQ360TYDN RXYQ384TTJU **RXYQ384TYDN** RXYQ408TTJU RXYQ408TYDN

Read these instructions carefully before installation. Keep this manual in a handy place for future reference. This manual should be left with the equipment owner.

Regarding the operation procedures of the remote controller, refer to the manual included to the corresponding remote controller.

English

Français

**Español** 

# Safety Considerations

Read these *Safety Considerations for Operations* carefully before installing air conditioner or heat pump. Make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Operation Manual with the Installation Manual for future reference. Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

↑ DANGERIndicates an imminently hazardous
situation which, if not avoided, will result
in death or serious injury.

WARNING......Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION ......Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE ......Indicates situations that may result in equipment or property-damage accidents only.

# − / DANGER

- Do not install the unit in an area where flammable materials are present due to risk of explosion resulting in serious injury or death.
- Any abnormalities in the operation of the air conditioner or heat pump such as smoke or fire will result in severe injury or death. Turn off the power and contact your dealer immediately.
- Refrigerant gas may produce toxic gas if it comes into contact with fire, such as from a fan, heater, stove, or cooking device. Exposure to this gas will result in severe injury or death.
- For refrigerant leakage, consult your dealer.
   Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result leading to serious injury or death.
- If equipment utilizing a burner is used in the same room as the air conditioner or heat pump, there is the danger of oxygen deficiency which could lead to an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
- Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, will result in stabs or other injuries.
- Tear apart and throw away plastic packaging bags so that children will not play with them.
   Children playing with plastic bags face the danger of death by suffocation.

# — **⚠** WARNING

- Contact your dealer for repair and maintenance.
   Improper repair and maintenance could result in water leakage, electric shock, and fire. Only use accessories made by Daikin that are specifically designed for use with the equipment and have them installed by a professional.
- Contact your dealer to move and reinstall the air conditioner or heat pump. Incomplete installation could result in water leakage, electric shock, and fire.
- Never let the indoor unit or the remote controller get wet. Water could result in an electric shock or a fire.
- Never use flammable spray such as hair spray, lacquer, or paint near the unit. Flammable spray could result in a fire.
- When a fuse blows out, never replace it with one of incorrect ampere ratings or different wires. Always replace any blown fuse with a fuse of the same specification.
- Never remove the fan guard of the unit. A fan rotating at high speed without the fan guard is very dangerous and could result in injury.
- Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
- Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock; never sprinkle or spill water or liquids on the unit.
- Do not touch the switch with wet fingers.
   Touching a switch with wet fingers could result in electric shock.
- Do not allow children to play on or around the unit to prevent injury.
- The heat exchanger fins are sharp enough to cut. To avoid injury wear gloves or cover the fins while working around them.
- Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and could result in injury.
- Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may fall and could result in injury.
- Placing a flower vase or other containers with water or other liquids on the unit could result in a shock or fire if a spill occurs.
- Do not touch the air outlet or horizontal blades while the swing flap is in operation could result in fingers getting caught and injured.
- Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.
- Be sure to establish a ground.
   Do not ground the unit to a utility pipe, arrester, or telephone ground. Incomplete grounding may cause electrical shock, or fire. A high surge current from lightning or other sources may cause damage to the air conditioner.

 Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI may not be necessary.



#### CAUTION-

- Do not use the air conditioner or heat pump for any other purposes other than comfort cooling or heating.
   Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit it could result in damage by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury could result.
- Do not wash the air conditioner or heat pump with excessive water. An electric shock or fire could result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller could result in an electric shock or damage the internal electronic parts.
- Do not operate the air conditioner or heat pump when using a room fumigation type of insecticide. Failure to observe this could result in the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- Do not turn off the power immediately after stopping operation. Always wait for at least five minutes before turning off the power. Otherwise, water leakage could result.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the air conditioner or heat pump could result in the plastics parts break resulting in water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the air conditioner or heat pump as they can cut and could result in injury.
- Do not place objects in direct proximity of the outside unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals result in the unit malfunctioning, and could result in smoke or fire when they make contact with electrical parts.



#### NOTE -

- Never press the button of the remote controller with a hard, pointed object. The remote controller result in damage.
- Never pull or twist the electric wire of the remote controller. It may result in the unit malfunctioning.
- Do not place appliances that produce open flames in places that are exposed to the air flow of the unit or under the indoor unit. It may result in incomplete combustion or deformation of the unit due to the heat.

- Do not expose the controller to direct sunlight. The LCD display can become discolored and may result in fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The result may be that the panel becomes discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the air conditioner or heat pump in a sufficiently ventilated area and not surrounded by obstacles. Do not use the air conditioner or heat pump in the following places.
  - a. Places with a mist of mineral oil, such as cutting oil.
  - b. Locations such as coastal areas where there is a lot of salt in the air.
  - c. Locations such as hot springs where there is a lot of sulfur in the air.
  - d. Locations such as factories where the power voltage varies a lot.
  - e. In cars, boats, and other vehicles.
  - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
  - g. Locations where equipment produces electromagnetic waves.
  - h. Places with an acid or alkaline mist.
  - Places where fallen leaves can accumulate or where weeds can grow.
- Take snow protection measures. Contact your dealer for the details of snow protection measures, such as the use of a snow protection hood.
- Do not attempt to do electrical work or grounding work unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.
- Pay Attention to Operating Sound. Be sure to use the following places:
  - a. Places that can sufficiently withstand the weight of the air conditioner or heat pump yet can suppress the operating sound and vibration.
  - b. Places where warm air from the air outlet of the outdoor unit or the operating sound of the outdoor unit does not annoy neighbors.
- Make sure that there are no obstacles close to the outdoor unit. Obstacles close to the outdoor unit may drop the performance of the outdoor unit or increase the operating sound of the outdoor unit.
- Consult your dealer if the air conditioner or heat pump in operation generates unusual noise.
- Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the air conditioner or heat pump is in the cooling mode, the result may be that the drainpipe becomes clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the air conditioner or heat pump and contact your dealer.

# Safety Considerations

#### [Place of Installation]

- Make sure that the air conditioner is located in a sufficiently ventilated place not surrounded by obstacles.
- Do not use the air conditioner in the following places.
  - a. Places with a mist of mineral oil, such as cutting oil.
  - **b.** Locations such as coastal areas where there is a lot of salt in the air.
  - c. Locations such as hot springs resorts where there is a lot of sulfur in the air.
  - d. Locations such as factories where the power voltage varies a lot.
  - e. In cars, boats, and other vehicles.
- **f.** Locations such as kitchens where oil may splatter or there is steam in the air.
- g. Locations where equipment that produces electromagnetic waves is found.
- h. Places with an acid or alkaline mist.
- Places where fallen leaves are accumulated or weeds grow close together.
- · Take snow protection measures.

Contact your local dealer for the details of snow protection measures, such as the use of a snow protection hood.

#### [Electrical Work]

- Do not attempt to conduct electrical work or grounding work unless you are licensed to do so.
   Consult with your local dealer for electrical work and grounding work.
- Use a dedicated circuit for the air conditioner.

#### [Pay Attention to Operating Sound]

- · Be sure to use the following places.
  - a. Places that can sufficiently withstand the weight of the air conditioner and suppress the operating sound and vibration of the air conditioner.
  - **b.** Places where warm air from the air outlet of the outside unit or the operating sound of the outside unit does not annoy neighbors.
- Make sure that there are no obstacles close to the outside unit.
  - Obstacles close to the outside unit may drop the performance of the outside unit or an increase in the operating sound of the outside unit.
- Consult your local dealer if the air conditioner in operation generates unusual noise.

#### [Drainage through Drainpipe]

 Make sure that the drainpipe is installed properly to drain water.

If no water is discharged from the drainpipe while the air conditioner is cooling operation, the drainpipe may be clogged with dust or dirt and water leakage from the indoor units may result.

Stop operating the air conditioner and consult your local dealer.



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# **Specifications**

This table shows the specifications of the single module.

For the specifications of the multi module system, refer to the specifications of each single module that constitutes the system.

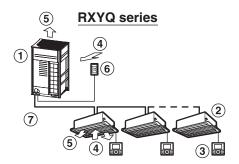
Model name		RXYQ72TTJU	RXYQ96TTJU	RXYQ120TTJU	RXYQ144TTJU	RXYQ168TTJU
Power supply						
Phase	-	3~	3~	3~	3~	3~
Frequency	Hz	60	60	60	60	60
Voltage	V	208/230	208/230	208/230	208/230	208/230
Nominal cooling Maximum capacity	Btu/h	72,000	96,000	120,000	144,000	168,000
Nominal heating Maximum capacity	Btu/h	81,000	108,000	135,000	162,000	188,000
Dimensions H×W×D	inch (mm)	66-11/16 (1694) × 36-11/16 (932) × 30-3/16 (767)	66-11/16 (1694) × 48-7/8 (1242) × 30-3/16 (767)			
Mass	lbs. (kg)	435 (198)	525 (238)	528 (239)	695 (315)	695 (315)
Refrigerant						
Туре	T -	R410A	R410A	R410A	R410A	R410A
Charge	lbs. (kg)	13.0 (5.9)	22.7 (10.3)	22.9 (10.4)	18.1 (8.2)	17.2 (7.8)
Design pressure						
High side	psig (MPa)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)
Low side	psig (MPa)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)

Model name		RXYQ72TYDN	RXYQ96TYDN	RXYQ120TYDN	RXYQ144TYDN	RXYQ168TYDN
Power supply						
Phase		3~	3~	3~	3~	3~
Frequency	Hz	60	60	60	60	60
Voltage	V	460	460	460	460	460
Nominal cooling Maximum capacity	Btu/h	72,000	96,000	120,000	144,000	168,000
Nominal heating Maximum capacity	Btu/h	81,000	108,000	135,000	162,000	188,000
Dimensions HxWxD	inch (mm)	66-11/16 (1694) × 36-11/16 (932) × 30-3/16 (767)	66-11/16 (1694) × 48-7/8 (1242) × 30-3/16 (767)			
Mass	lbs. (kg)	451 (205)	553 (251)	556 (252)	709 (322)	709 (322)
Refrigerant					•	
Type		R410A	R410A	R410A	R410A	R410A
Charge	lbs. (kg)	13.0 (5.9)	22.7 (10.3)	22.9 (10.4)	18.1 (8.2)	17.2 (7.8)
Design pressure						
High side	psig (MPa)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)	478 (3.3)
Low side	psig (MPa)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)	320 (2.21)

# What to do before Operation

This operation manual is for the following system with standard control. Before initiating operation, contact your local dealer for the operation that corresponds to your system type.

If your installation has a customized control system, ask your local dealer for the operation that corresponds to your system.



- 1. Outdoor unit
- 2. Indoor unit
- 3. Remote controller
- 4. Inlet air
- 5. Outlet air
- 6. Cool/Heat selector
- 7. Refrigerant piping

# **Operation Range**

	COOLING	HEATING
Outdoor temperature	23°-110°FDB	0°-60°FWB
Indoor temperature	57°-77°FWB	59°-80°FDB
Indoor humidity	80%	_

#### Note

· Cooling operation:

If the air conditioner is operated continuously while the indoor temperature is 70°F or below and the humidity is 80% or over, the interiors of the indoor units may cause icing and water leakage may result.

Heating operation

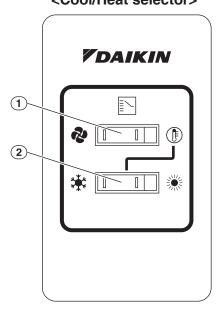
The air conditioner may stop operating for the protection of the machine if the outdoor temperature is 70°F or over.

# **Operation Procedure**

- Operation procedure varies according to the combination of outside unit and remote controller. Read the chapter "What to do before Operation".
- Do not turn it off during the air conditioning season for starting operation smoothly.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.

# Cool/Heat Selector: Name and Function of Each Switch and Display

# <Cool/Heat selector>



### 1. Fan only/air conditioning selector switch

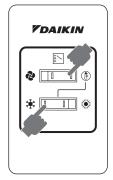
• Set the switch to " or fan only operation or to " or for heating or cooling operation.

#### 2. COOL/HEAT changeover switch

• Set the switch to " \* " for cooling operation or to " \* " for heating operation.

• Select operation mode with the Cool/Heat selector as follows:

Cooling operation



Heating operation



Fan only operation



Press On/Off button.
 The operation lamp lights up and the system starts operation.

# **Basic Operation**

### **Dry Mode**

#### Preparation

- For equipment protection purposes, apply power to the outdoor units at least 6 hours before starting the operation of the system.
- The dry mode may not be selected if the remote controller is master controlled and the system is not already in the cooling mode of operation (see the following section).
- In case of changing the operation mode by the Cool/Heat selector, set it to cooling operation mode.



#### **Cool / Heat Mode Selection Availability**

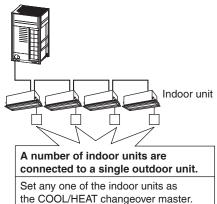
• "Cool", "Heat" and "Auto" are all only available for selection on the COOL/HEAT changeover master indoor unit. The following table indicates the available operating modes of the other indoor units on the system based upon the selected mode of the master indoor unit.

When the master indoor unit is set to	The other indoor units in the system can be set to				
	Cool	Dry	Heat	Fan	
Cool mode	✓	1		1	
Dry mode	<b>√</b>	1		1	
Heat mode			/	1	
Fan mode				1	
Auto mode (Cooling operation)	✓	1		1	
Auto mode (Heating operation)			/	/	

#### Precautions for Selecting the COOL / HEAT Changeover Master Indoor Unit

• The COOL/HEAT changeover master must be set for a single indoor unit in the following applications

#### (2-Pipe Heat Pump System)

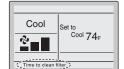


# **Maintenance**

### **Reset Filter Indicator**

#### Operation





- When it is time to clean or replace the filter, one of the following messages will appear on the bottom of the basic screen.
- "Time to clean filter"
- "Time to clean filter & element"
- "Time to clean element"
- Wash, clean, or replace the filter or element.
   For details, refer to the Operation Manual supplied with the indoor unit.

2

- Reset the filter indicator when the filter or element is cleaned or replaced.
- Press Menu/OK button.
   The main menu screen will appear.

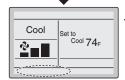


3



 Press ▼▲ buttons to select Reset Filter Indicator on the main menu screen and press Menu/OK button.





• The display shown in illustration 1 will disappear from the basic screen when the filter sign is reset.

### Maintaining the Unit and LCD Display

- · Wipe the LCD and surface of the remote controller with a dry cloth when they become dirty.
- If the dirt on the surface cannot be removed, soak the cloth in neutral detergent diluted with water, squeeze the cloth tightly, and clean the surface. Wipe the surface with a dry cloth.

#### Note

• Do not use any paint thinner, organic solvent, or strong acid.

# **Reference Information**

## **Error Code Display**

### ■Contact your local dealer in the following cases

#### Operation





• If an error occurs, either one of the following items will flash in the basic screen.

"Error: Press Menu button"

- \*The operation lamp will flash.
- "Warning: Press Menu button"
- \*The operation lamp will not flash.
- Press Menu/OK button.







- The Error code will flash and the service contact and model name or code may appear.
- Notify your local dealer of the Error code and model name or code.

### **Precautions for Group Control System or Two Remote Controller Control System**

This system provides two other control systems beside individual control (one remote controller controls one indoor unit) system. Confirm which type of your unit is the following system.

- Group control system
  - One remote controller controls up to 16 indoor units. All indoor units are equally set.
- Two remote controller control system

Two remote controllers control one indoor unit (in case of group control system, one group of indoor units). The unit is individually operated.

#### **Note**

· Contact your local dealer in case of changing the combination or setting of group control and two remote controller control systems.

# **Optimum Operation**

Observe the following precautions to ensure the system operates properly.

- Prevent direct sunlight from entering a room during cooling operation by using curtains or blinds.
- Do not leave doors and windows open. If the doors and windows remain open, air will flow out of your room causing a decrease in the cooling or heating effect.
- Do not use other heating devices directly beneath the indoor unit.

If you do, they might get deformed by the heat.

- Never place objects near the air inlet or the air outlet of the unit. It may cause deterioration in the effect or stop the operation.
- Adjust the room temperature properly for a comfortable environment. Avoid excessive heating or cooling.
- Ventilate often.

Extended use requires special attention to ventilation.

- Keep the indoor unit and remote controller at least 3.5 ft. away from televisions, radios, stereos, and other similar equipment.
   Failing to do so may cause static or distorted pictures.
- Turn off the main power supply switch to the unit when the unit is not used for longer periods of time. If the switch is on, it uses electricity. Before restarting the unit, turn on the main power supply switch 6 hours before operation to ensure smooth running. (Refer to the chapter "Maintenance" in the indoor unit manual.)
- Fully use the function of air flow direction adjust.

Cold air gathers on the floor, and warm air gathers in the ceiling.

Set the air flow direction parallel during cooling or dry operation, and set it downwards during heating operation. Do not let the air blow directly to a person.

• It takes time for the room temperature to reach the set temperature.

We recommend starting the operation in advance using schedule operation.

# Seasonal Maintenance



#### Caution

- Do not touch the air inlets or aluminum fins of the outside or indoor units.
  - Touching them may result in injury.
- · Do not wash the outside or indoor units with water.

An electric shock or fire may result.

· Watch your steps at the time of air filter cleaning etc.

If the scaffold is unstable, you may fall or topple down, thus causing injury.

Be sure to stop the operation, and turn the breaker off before cleaning.

This may cause electric shock and injury.

• Consult with the dealer for cleaning the interior of the indoor units.

Incorrect cleaning may damage the plastic parts and cause failures, such as water leakage, and an electric shock may result.

### ■At the beginning of the season

#### Check

Are the indoor and outside unit intake and outlet vents blocked?
 Remove anything that might be blocking them.

#### Clean the exterior.

See the Operation Manual included with the indoor unit for details on how to clean it.

#### Turn the power on.

• When the power comes on, the characters in the remote controller display appear.

(To protect the unit, turn the power on at least 6 hours before operating it. This makes operation smoother.)

#### ■At the end of the season

On a clear day, use fan operation for around half a day to thoroughly dry out the interior of the unit.

Refer to chapter "Operation Procedure" for details on fan operation.

#### Turn off the power.

- When the power is shut off, the characters in the remote controller display disappear.
- When the power is on, the unit consumes up to several dozen Watts of power.

Turn off the power to conserve energy.

#### Clean the exterior.

• See the Operation Manual included with the indoor unit for details on how to clean it.

# Following Symptoms are not Air Conditioner Troubles

### ■The system does not operate

· The air conditioner does not start immediately when restarting or changing the operation mode.

If the operation lamp lights, the system is in normal condition.

To prevent overloading of the compressor motor, the air conditioner starts 5 minutes after it is turned ON again in case it was turned OFF just before.

• If " CENTRAL CONTROL" is displayed on the remote controller and pressing the operation button causes the display to blink for a few seconds.

This indicates that the central device is controlling the unit.

The blinking display indicates that the remote control cannot be used.

The system does not start immediately after the power supply is turned on.

Wait 1 minute until the micro computer is prepared for operation.

### ■It stops sometimes

The remote controller display reads "U4" or "U5" and stops but then restarts after a few minutes.

This is because the remote control is intercepting noise from electrical appliances other than the air conditioner, and this prevents communication between the units, causing them to stop.

Operation automatically restarts when the noise goes away.

### ■Cool/heat cannot be changed over

 When the display shows " CONTROLLED ". It shows that this is a slave remote controller.

Refer to "Setting the Cool/Heat Change over Master".

• When the Cool/Heat selector switch is installed and the display shows " CONTROLLED ".

This is because COOL/HEAT changeover is controlled by the Cool/Heat selector. Ask your local dealer where the remote control switch is installed

### ■ Fan operation is possible, but cooling and heating do not work

Immediately after the power is turned on.

The micro computer is getting ready to operate. Wait 10 minutes.

### ■The fan speed does not correspond to the setting

The fan speed does not change even if the fan speed control button is pressed.

During heating operation, when the room temperature reaches the set temperature, the outside unit goes off and the indoor unit changes to whisper the fan speed.

This is to prevent cold air blowing directly on occupants of the room.

The fan speed will not change even if the button is pressed, when another indoor unit is in heating operation.

### ■The fan direction does not correspond to the setting

The fan direction does not correspond to the remote control display.

The fan direction does not swing.

This is because the unit is being controlled by the micro computer.

# Following Symptoms are not Air Conditioner Troubles

#### ■White mist comes out of the unit

#### Indoor unit

When humidity is high during cooling operation.

If the interior of indoor unit is extremely contaminated, the temperature distribution inside a room becomes uneven. It is necessary to clean the interior of the indoor unit. Ask your local dealer for details on cleaning the unit. This operation requires a qualified service person.

Immediately after the cooling operation stops and if the room temperature and humidity are low.

This is because warm refrigerant gas flows back into the indoor unit and generates steam.

#### **Outside unit**

· When the system is changed over to heating operation after defrost operation.

Moisture generated by defrost becomes steam and is exhausted.

#### ■ Noise of air conditioners

#### Indoor unit

• A "zeen" sound is heard immediately after the power supply is turned on.

The electronic expansion valve inside an indoor unit starts working and makes the noise. Its volume will reduce in about 1 minute.

• A continuous low hissing sound like flowing water is heard when the system is in cooling operation or at a stop. When the drain pump (an optional accessory) is in operation, this noise is heard.

· A squeaking sound is heard when the system stops after heating operation.

Expansion and contraction of plastic parts caused by temperature change make this noise.

• A low sound like dripping water is heard while the indoor unit is stopped.

When the other indoor unit is in operation, this noise is heard. In order to prevent oil and refrigerant from remaining in the system, a small amount of refrigerant is kept flowing.

#### **Outside unit**

· When the tone of operating noise changes.

This noise is caused by the change of frequency.

#### Indoor unit, outside unit

A continuous low hissing sound is heard when the system is in cooling or defrost operation.

This is the sound of refrigerant gas flowing through both indoor and outside units.

A hissing sound which is heard at the start or immediately after stopping operation or defrost operation.

This is the noise of refrigerant caused by flow stop or flow change.

#### ■ Dust comes out of the unit

When the unit is used after stopping for a long time.

This is because dust has gotten into the unit.

## ■The units can give off odors

During operation.

The unit can absorb the smell of rooms, furniture, cigarettes, etc., and then emit it again.

#### ■The outside unit fan does not rotate

· During operation.

The speed of the fan is controlled in order to optimize product operation.

### ■The compressor or fan in the outside unit does not stop

· This is to prevent oil and refrigerant from remaining in the compressor. The unit will stop after 5 to 10 minutes.

## ■The inside of outside unit is warm even when the unit has stopped

This is because the crankcase heater is warming the compressor so that the compressor can start smoothly.

### ■Hot air is emitted even though the unit is stopped

Hot air can be felt when the unit is stopped.

Several different indoor units are being run on the same system, so if another unit is running, some refrigerant will still flow through the unit.

### ■ Does not cool very well

· Dry operation.

Dry operation is designed to lower the room temperature as little as possible. Refer to page 5.

# Trouble Shooting

If one of the following malfunctions occur, take the measures shown below and contact your local dealer.



Stop operation and shut off the power if anything unusual occurs (burning smells, etc.) Leaving the unit running under such circumstances may cause breakage, electrical shock, or fire. Contact your local dealer.

- If a safety device such as a fuse, a breaker or an earth leakage breaker frequently actuates; Measure: Do not turn on the main power switch.
- If the ON/OFF switch does not properly work;
- Measure: Turn off the main power switch.
- · If water leaks from unit:
  - Measure: Stop the operation.
- The operation mode selector button does not work well.

Turn off the power.

If the system does not properly operate except for the above mentioned cases and none of the above mentioned malfunctions is evident, investigate the system according to the following procedures.

If it is impossible to fix the problem after checking all the above items, contact your local dealer.

Let them know the symptoms, system name, and model name.

- 1. If the system does not operate at all;
- Check if there is no power failure.

Wait until power is restored. If power failure occurs during operation, the system automatically restarts immediately after the power supply is recovered.

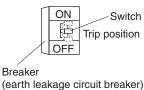
- · Check if no fuse has blown:
  - Turn off the power supply.
- Check if the breaker is blown.

Turn the power on with the breaker switch in the OFF position.

Do not turn the power on with the breaker switch in the Trip position.

(Contact your local dealer.)

- 2. If the system stops soon after starting the operation;
- Check if air inlet or outlet of outside or indoor unit is not blocked by obstacles. Remove any obstacle and make it well-ventilated.
- Check if the remote controller display shows "Time to clean filter & element"; Refer to the Operation Manual of the indoor unit. And clean the air filter or element.
- 3. The system operates but cooling or heating is insufficient;
- Check if air inlet or outlet of outside or indoor unit is not blocked by obstacles. Remove any obstacle and make it well-ventilated.
- Check if the remote controller display shows "Time to clean filter & element"; Refer to the Operation Manual of the indoor unit. And clean the air filter or element.
- Check the temperature setting. Refer to "Operation Procedure".



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# Trouble Shooting

- Check the fan speed setting on your remote controller.
  - Refer to "Operation Procedure".
- · Check for open doors or windows.
  - Shut doors and windows to prevent wind from coming in.
- Check if there are too many occupants in the room during cooling operation.
- Check if the heat source of the room is excessive during cooling operation.
- Check if direct sunlight enters the room during cooling operation. Use curtains or blinds.
- · Check if the air flow angle is not proper.
  - Refer to "Operation Procedure".

# After-Sales Service and Warranty

# After-sale Service



#### **Danger**

· Refrigerant gas may produce a toxic gas if it comes in contact with fire such as from a fan, heater, stove or cooking device. Exposure to this gas could cause severe injury or death.



#### /i\ Warning

- · Do not disassemble, modify or repair the unit.
- This may cause water leakage, electric shock or fire.
- Contact your local dealer.
- Do not remove or reinstall the unit by yourself.

Incorrect installation may cause water leakage, electrical shock or fire.

Contact your local dealer.

- · When asking your local dealer to repair, inform related staff of the details as follows:
- · Model name and product No. of air conditioner:
  - Refer to the warranty card.
- · Shipping date and installation date:
  - Refer to the warranty card.
- Malfunction:
  - Inform the staff of the defective details. (Malfunction code being displayed on the remote controller.)
- · Name, address, telephone number
- · Repair after the warranty term is expired

Contact your local dealer. If necessary to repair, pay service is available.

Minimum storage period of important parts

Even after a certain type of air conditioner is discontinued, we have the related important parts in stock for 9 years at least. The important parts indicate parts essential to operate the air conditioner.

Recommendations for maintenance and inspection

Since dust collects after using the unit for several years, the performance will be deteriorated to some extent. Disassembling and cleaning inside require technical expertise, so we recommend entering a maintenance and inspection contract (at a cost) separate from normal maintenance.

Recommended inspection and maintenance cycles

[Note: The maintenance cycle is not the same as the warranty period.]

Table 1 assumes the following usage conditions.

- 1. Normal use without frequent starting and stopping of the machine. (Although it varies with the model, we recommend not starting and stopping the machine more than 6 times/hour for normal use.)
- 2. Operation of the product is assumed to be 10 hours/day and 2,500 hours/year.

#### • Table 1 "Inspection Cycle" and "Maintenance Cycle" Lists

Name of Main Part	Inspection Cycle	Maintenance Cycle [replacements and/or repairs]
Compressor		20,000 hours
Electric motor (fan, damper, etc.)		20,000 hours
PC boards		25,000 hours
Heat exchanger		5 years
Sensor (thermistor, etc.)	1 year	5 years
Remote controller and switches		25,000 hours
Drain pan		8 years
Expansion valve		20,000 hours
Electromagnetic valve		20,000 hours
FAN		Outside: 10 years
		Indoor: 13 years

#### Note 1

This table indicates main parts.

See the maintenance and inspection contract for details.

#### Note 2

This maintenance cycle indicates recommended lengths of time until the need arises for maintenance work, in order to ensure the product is operational as long as possible.

Use for appropriate maintenance design (budgeting maintenance and inspection fees, etc.).

Depending on the content of the maintenance and inspection contract, the inspection and maintenance cycles may in reality be shorter than those listed here.

#### Shortening of "maintenance cycle" and "replacement cycle" needs to be considered in the following cases.

- 1. When used in hot, humid locations or locations where temperature and humidity fluctuate greatly.
- 2. When used in locations where power fluctuation (voltage, frequency, wave distortion, etc.) is high. (Cannot be used if it is outside the allowable range.)
- 3. When installed and used in locations where bumps and vibrations are frequent.
- 4. When used in bad locations where dust, salt, harmful gas or oil mist such as sulfurous acid and hydrogen sulfide may be present in the air.
- 5. When used in locations where the machine is started and stopped frequently or operation time is long. (Example: 24 hour air-conditioning)

# ■ Recommended replacement cycle of wear-out parts [The cycle is not the same as the warranty period.]

#### • Table 2 "Replacement Cycle" Lists

Name of Main Part	Inspection Cycle	Replacement Cycle
Air filter		5 years
High efficiency filter (Optional accessory)	1 year	1 year
Fuse		10 years
Crankcase heater		8 years

#### Note 1

This table indicates main parts.

See the maintenance and inspection contract for details.

#### Note 2

This maintenance cycle indicates recommended lengths of time until the need arises for maintenance work, in order to ensure the product is operational as long as possible.

Use for appropriate maintenance design (budgeting maintenance and inspection fees, etc.).

Contact your local dealer for details.

Note: Breakage due to taking apart or cleaning inside by anyone other than our authorized dealers may not be included in the warranty.

# **After-Sales Service and Warranty**

### ■ Moving and discarding the unit

- Contact your local dealer for removing and reinstalling the total enthalpy heat exchanger when moving house since they require technical expertise.
- This total enthalpy heat exchanger uses chlorofluorocarbon.
   Contact your local dealer for discarding this unit since it is required by law to collect, transport and discard the refrigerant in accordance with "chlorofluorocarbon collection and destruction" law.

#### ■Where to call

For after-sales service, etc., consult with your local dealer.

### ■Warranty period:

• This product includes a warranty card.

The warranty card is given to a customer after dealer staff fills out necessary items in the card. The customer should check the entered items and store it carefully.

Warranty period: Within one year after installation.

For further details, refer to the warranty card.

• If it is necessary to repair the air conditioner within the warranty period, contact your local dealer and show your warranty card. If the warranty card is not shown, pay-service repair may be performed even though the warranty period is not expired.