

# SYSVRF2 Indoor unit



VRF DC Indoor units  
OWNER MANUAL



systemair

Thank you for purchasing this air conditioning unit.  
Read this manual carefully before using the unit and retain it for future reference.

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# 1. IMPORTANT SAFETY INFORMATION

## 1.1 Types of precautions

To gain full advantage of the unit's functions and to avoid malfunctions due to mishandling, we recommend that you read this instruction manual carefully before use.

The precautions described herein are classified as WARNING and CAUTION. They both contain important information regarding safety. Ensure that you follow them carefully.



### WARNING

Failure to follow these instructions may result in injury, even loss of life.



### CAUTION

Failure to observe these instructions may result in serious property damage or injury.

## 1.2 General precautions



### WARNING

Do not use this unit in locations where flammable gas may exist. If flammable gas comes into contact with the unit, a fire may occur, which could result in serious injury or death.

If this unit exhibits any abnormal behavior (such as emitting smoke) there is a danger of serious injury. Disconnect the power supply and contact your supplier or service engineer immediately.

The refrigerant in this unit is safe and should not leak if the system is designed and installed properly. However, if a large amount of refrigerant leaks into a room, the oxygen concentration will decrease rapidly, which can cause serious injury or death. The refrigerant used in this unit is heavier than air, so the danger is greater in basements or other underground spaces. In the event of a refrigerant leak, turn off any devices that produce a naked flame and any heating devices, ventilate the room, and contact your supplier or service engineer immediately.

Toxic fumes may be produced if the refrigerant in this unit comes into contact with naked flames (such as from a heater, gas stove/burners, or electric appliances).

If this unit is used in the same room as a cooker, stove, hob, or burner, ventilation for sufficient fresh air must be ensured, otherwise the oxygen concentration will fall, which may cause injury.

Dispose of this unit's packaging carefully, so children cannot play with it. Packaging, especially plastic packaging, can be dangerous, can cause serious injury or death. Screws, staples and other metal packaging components can be sharp and should be disposed of carefully to avoid injury.

Do not attempt to inspect or repair this unit yourself. This unit should only be serviced and maintained by a professional air conditioning service engineer. Incorrect servicing or maintenance can cause electric shocks, fire or water leaks.

This unit should only be re-positioned or re-installed by a professional technician. Incorrect installation can lead to electric shocks, fire or water leaks. The installation and grounding of electrical appliances should only be carried out by licensed professionals. Ask your supplier or installation engineer for further information.

Do not allow this unit or its remote controller to come into contact with water, as this can lead to electric shocks or fire.

Do not use paint, varnish, hair spray, other flammable sprays or other liquids that may give off flammable fumes/vapor near this unit, as doing so can cause fires.

When replacing a fuse, ensure that the new fuse to be installed completely complies with requirements.

Do not open or remove the unit's panel when the unit is powered on. Touching the unit's internal components while the unit is powered on can lead to electric shocks or injuries caused by moving parts such as the unit's fan.

Ensure that the power supply is disconnected before any servicing or maintenance is carried out.

Do not touch the unit or its remote controller with wet hands, as doing so can lead to electric shocks.

Do not allow children to play near this unit, as doing so risks injury.

Do not insert your fingers or other objects into the unit's air inlet or air outlet to avoid injury or damage to the equipment.

Do not spray any liquids onto the unit or allow any liquids to drip onto the unit.

Do not place vases or other liquid containers on the unit or in places where liquid could drip onto it. Water or other liquids that come into contact with the unit can lead to electric shocks or fires.

Do not remove the remote controller's front or back covers and do not touch the remote controller's internal components, as doing so can cause injury. If the remote controller stops working, contact your supplier or service engineer.

Ensure that the unit is properly grounded, otherwise electric shocks or a fire may result. Electrical surges (such as those that can be caused by lightning) can damage electrical equipment. Ensure that suitable surge protectors and circuit breakers are properly installed, otherwise electric shocks or a fire may result.

Dispose of this unit properly and in accordance with regulations. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and thus enter the food chain.

Do not use the unit until the qualified technician instructs you that it is safe to do so.

Do not place appliances that produce naked flames in the path of the airflow from the unit. The airflow from the unit may increase the rate of combustion, which may cause a fire and cause serious injury or death. Alternatively, the airflow may cause incomplete combustion which can lead to reduced oxygen concentration in the room, which can cause serious injury or death.



## CAUTION

Only use the air conditioner for its intended purpose. This unit should not be used to provide refrigeration or cooling for food, plants, animals, machinery, equipment or art.

Turn off the unit before cleaning it to avoid electric shocks. Otherwise, an electric shock and injury may result.

To avoid electric shocks and fires, install an earth leakage detector.

The fins on the unit's heat exchanger are sharp and can cause injury if touched. To prevent injury, when the unit is being serviced, gloves should be worn or the heat exchanger should be covered.

Do not place items which might be damaged by moisture under the unit. When the humidity is greater than 80% or if the drain pipe is blocked or the air filter is dirty, water could drip from the unit and damage objects placed under the unit.

Ensure that the drain pipe functions properly. If the drain pipe is blocked by dirt or dust, water leaks may occur when the unit is running in cooling mode. If this happens, turn the unit off and contact your supplier or service engineer.

Do not touch the internal parts of the controller. Do not remove the front panel. Some internal parts may cause injury or be damaged.

Ensure that children, plants and animals are not directly exposed to the airflow from the unit.

When fumigating a room with insecticide or other chemicals, cover the unit well and do not run it. Failure to observe this caution could lead to chemicals getting deposited inside the unit and later emitted from the unit when it running, endangering the health of any room occupants.

Do not dispose of this product as unsorted waste. It must be separately collected and processed. Ensure that all applicable legislation regarding the disposal of refrigerant, oil and other materials is adhered to. Contact your local waste disposal authority for information about disposal procedures.



To avoid damaging the remote controller, exercise caution when using it and replacing its batteries. Do not place objects on top of it.

Do not place appliances that have naked flames under or near the unit, as heat from the appliance can damage the unit.

Do not place the unit's remote controller in direct sunlight. Direct sunlight can damage the remote controller's display.

Do not use strong chemical cleaners to clean the unit, as doing so can damage the unit's display or other surfaces. If the unit is dirty or dusty, use a slightly damp cloth with very diluted and mild detergent to wipe the unit. Then, dry it with a dry cloth.

Only use this unit in well-ventilated spaces and ensure that there are no obstructions that could impede the airflow into and out of the unit. Do not use this unit in the following locations:

- a. Places with vapor from mineral oil or cutting oil.
- b. Locations with saline atmospheres, such as seaside locations.
- c. Locations with sulphurous atmospheres, such as near industrial locations.
- d. Where high voltage electricity is present, such as certain industrial locations.
- e. On vehicles or vessels, such as trucks or ferry boats.
- f. Where exposure to oily or very humid air may occur such as kitchens.
- g. In proximity to sources of electromagnetic radiation such as high-frequency transmitters or other high-strength radiation devices.
- h. Where exposure to corrosive or harmful gases, such as acidic or alkaline gases, may occur.

To avoid excessive noise or vibration, the unit should be installed in a position that can bear the unit's weight and prevent excessive noise and vibration when the unit is running. If excessive noise or vibration is experienced when the unit is running, contact your supplier or service engineer.

Ensure that the drain pipe functions properly. If the drain pipe becomes blocked by dirt or dust, water leaks may occur when the unit is running in cooling mode. If this happens, turn the unit off and contact your supplier or service engineer.

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. (This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.)

## 2. PART NAMES

The figure shown above is for reference only and may be slightly different from the actual product.

### ■ Four-way cassette type

Air Outlet Louver (adjustable)  
for in-situ adjustment to three-direction or two-direction,  
please contact the local dealer .

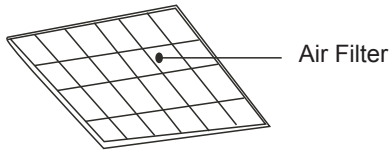
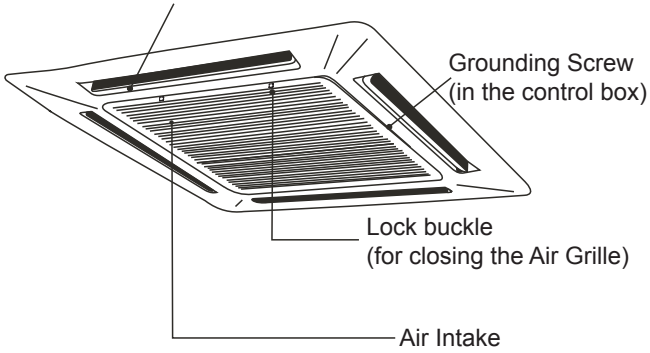


Fig.2-1

### ■ Ceiling-floor type(36-71kW)

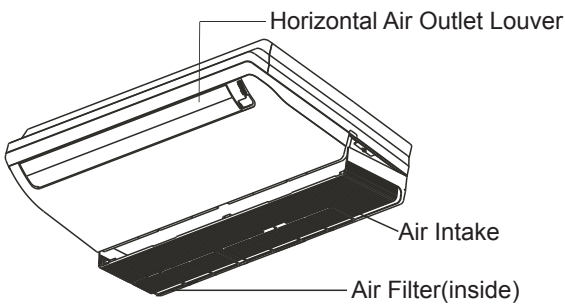


Fig.2-2

### ■ Ceiling-floor type(80-90kW)

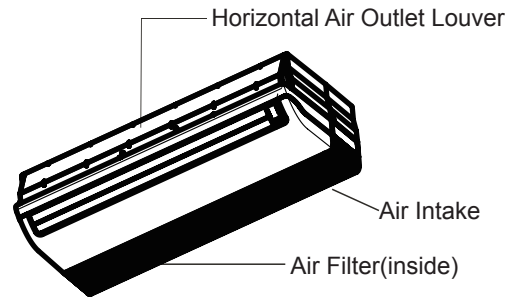


Fig.2-3

### ■ Ceiling-floor type(112-140kW)

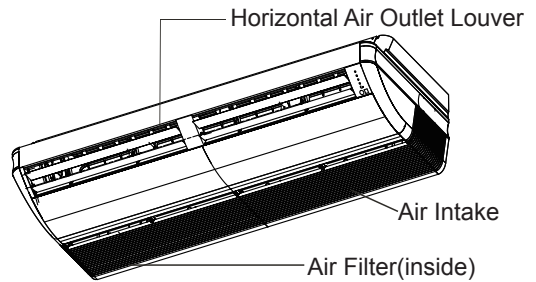


Fig.2-4

### ■ One-way cassette type(18-36kW)

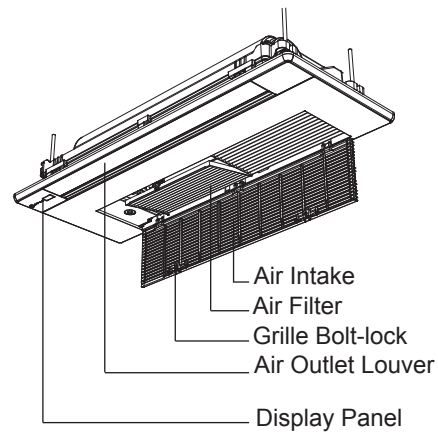


Fig.2-5

■ One-way cassette type(45-71kW)

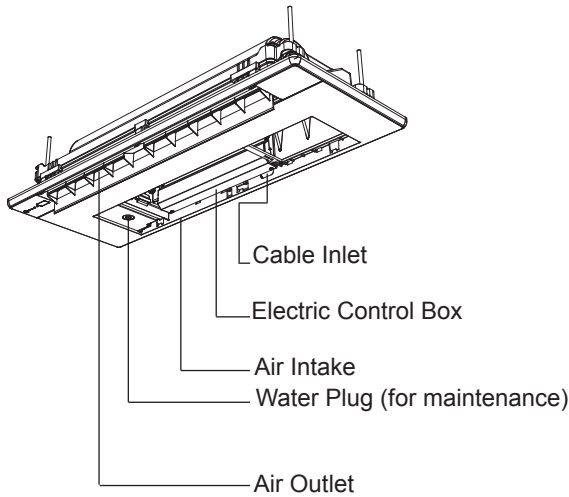


Fig.2-6

■ Medium static pressure duct type

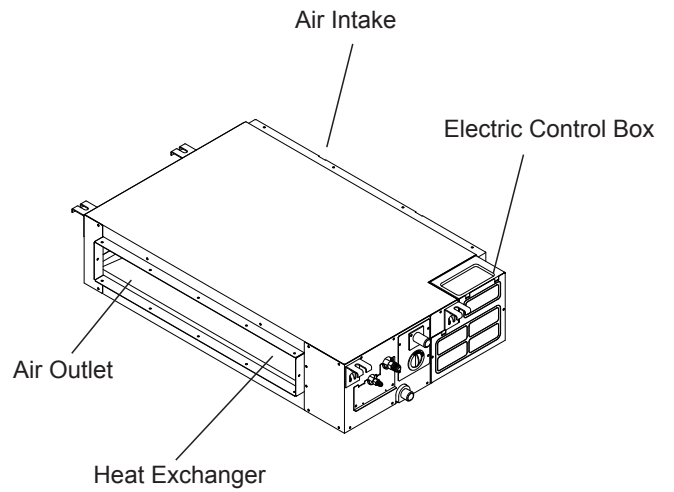


Fig.2-9

■ Wall-mounted type

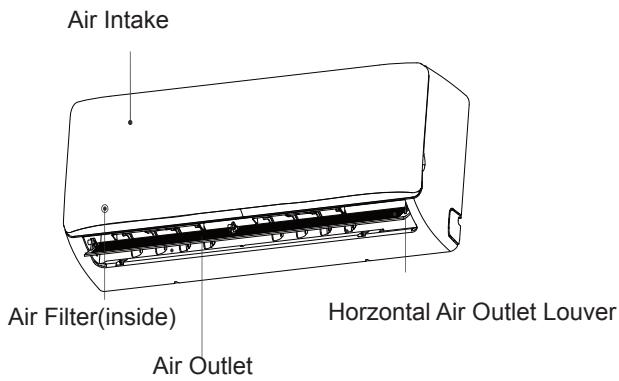


Fig.2-7

■ Console type

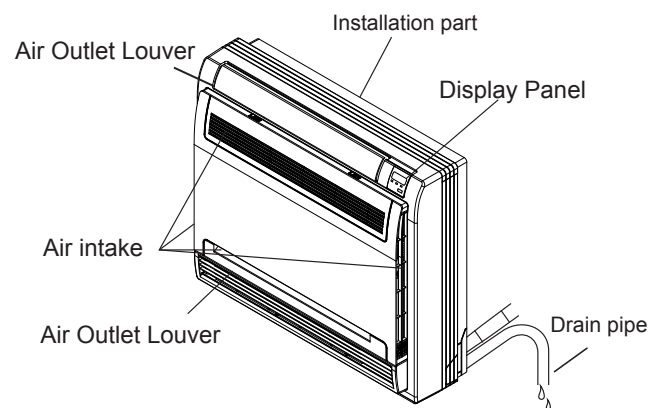


Fig.2-10

■ High static pressure duct type

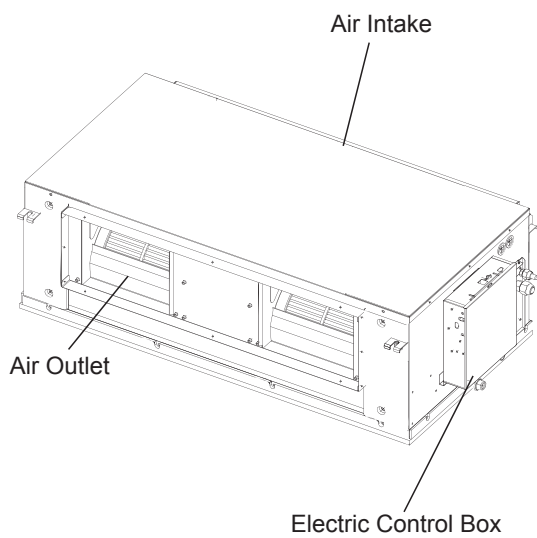


Fig.2-8

■ Floor standing type

- F4 front air intake(Version I )

Vertical unit with casing. Front air intake and top air outlet. It can be installed on the floor, or hung on the wall.

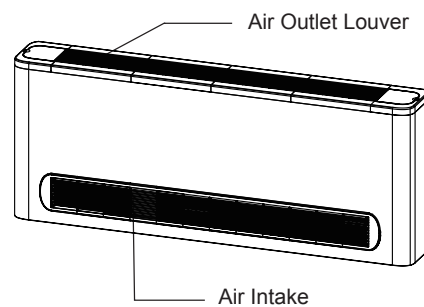


Fig.2-11

● F5 underside air intake(Version II)

Vertical unit with casing. Underside air intake and top air outlet. It can be installed on the floor, or hung on the wall.

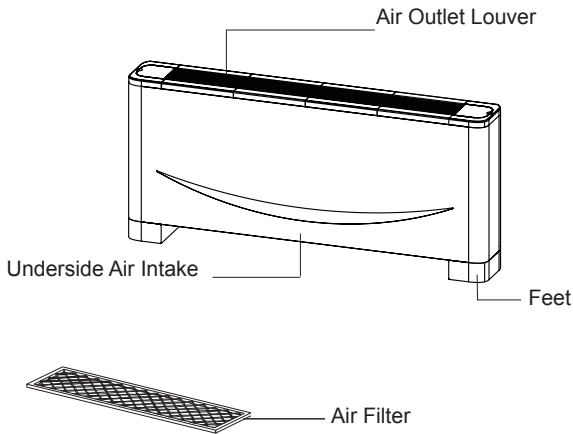


Fig.2-12

● F3B concealed(Version III)

Vertical unit without casing. Underside air intake and top air outlet. It is suitable for concealed installation requirement.

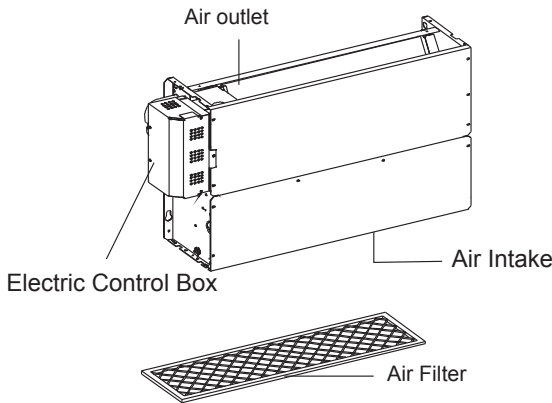


Fig.2-13

■ Two-way cassette type

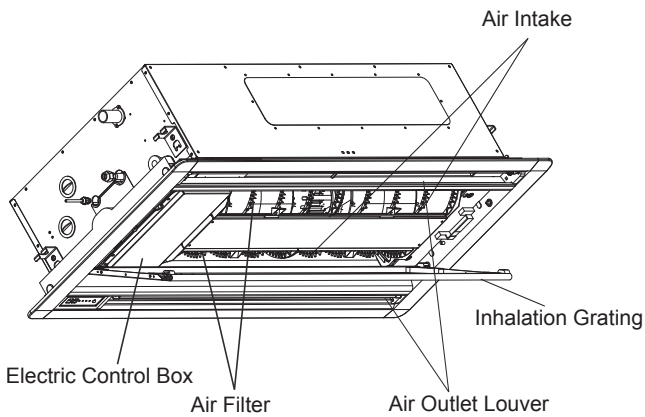


Fig.2-14

### 3. AIR CONDITIONER OPERATIONS AND PERFORMANCE

The operating temperature range under which the unit runs stably are given in Table 3-1.

Table 3-1

| Temperature<br>Mode            | Indoor temperature   |
|--------------------------------|--|
| Cooling mode                   | 17°C ~ 32°C  |
|                                | If the indoor humidity is above 80%, condensation may form on the surface of the unit. |
| Heating mode<br>(If it exists) | ≤27°C  |



#### NOTE

The unit performs stably in the temperature range given in Table 3-1. If the indoor temperature is outside the unit's normal operating range, it may stop running and display an error code.

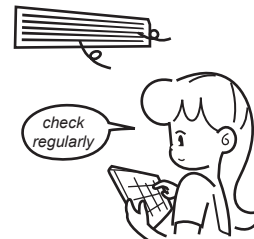
Heating mode is only available when the unit is connected to a system that can provide heating.

To ensure the desired temperature is achieved efficiently, ensure that:

- All windows and door are closed.
- The airflow direction is adjusted to work in running mode.
- The air filter is clean.

- Please note how you can best save energy and achieve the best cooling/heating effect.

- Regularly clean air filters inside indoor units.

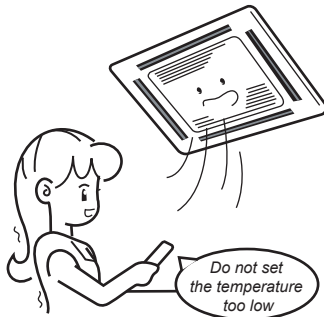


- Avoid too much outdoor air coming into air-conditioned spaces.



- Note that outlet air is cooler or heater than set room temperature.

Avoid direct exposure to outlet air as it may be too cool or hot. This applies especially to children, the elderly, and people with disabilities.



- Maintain a proper air distribution.

Air outlet louvers should be used to adjust the direction of outlet airflow, as doing so might ensure more efficient operation.



## 4. ADJUSTING AIR FLOW DIRECTION

Since warmer air rises and cooler air falls, the distribution of warmed/cooled air around a room can be improved by positioning the unit's louvers. The louver angle can be adjusted by pressing the [SWING] button on the remote controller.



### NOTE

During heating operation, horizontal airflow will aggravates the uneven distribution of room temperature.

The louver direction:  
Horizontal airflow is recommended during cooling operation. Note the downward air flow will cause condensation on the air outlet and louver surface.

### ■ Four-way cassette type

- Adjust the air direction up and down
- Auto-swing  
Press SWING for the louver to swing up and down.
- Manual swing  
Adjust the louver to improve the cooling or heating effect.
- When cooling  
adjust the louver horizontally

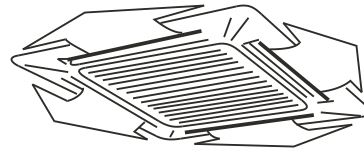


Fig.4-1

- When heating  
adjust the louver downward

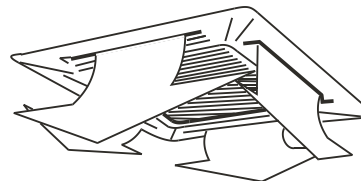


Fig.4-2

### ■ One-way cassette type

- Adjust the air direction up and down
- Auto-swing  
Press SWING for the louver to swing up and down.

Maximize air circulation area

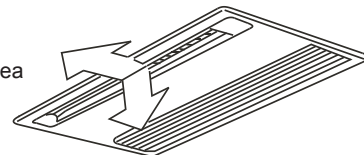


Fig.4-3

- Manual swing  
Adjust the louver to improve the cooling or heating effect.



- **When cooling**

adjust the louver horizontally

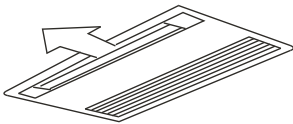


Fig.4-4

- **When heating**

adjust the louver downward

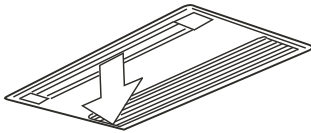


Fig.4-5

## ■ Wall-Mounted type

### ■ Adjust the air direction up and down

- **Auto-swing**

Press SWING and the louver will swing up and down automatically.

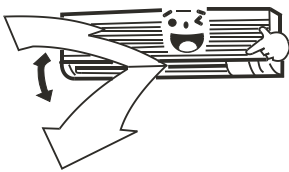


Fig.4-6

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

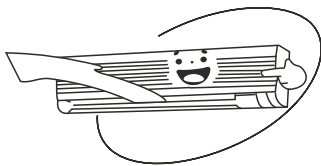


Fig.4-7

- **When heating**

Adjust the louver downward (vertically).

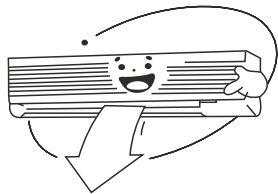


Fig.4-8



## CAUTION

Water may drip from the unit if the direction of outlet air is adjusted downward during cooling operation.

The uneven distribution of indoor temperature will be aggravated if the direction of outlet air is horizontal during heating operation.

Do not move the horizontal louver with your hand, as doing so may cause a malfunction. The position of the horizontal louver should be adjusted by the SWING button on the wired controller.

## ■ Ceiling-floor type

- **Auto-swing**

Press SWING and the louver will swing up and down (left and right) automatically.

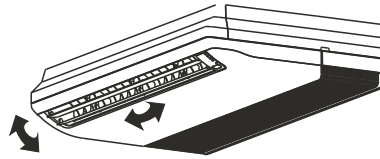


Fig.4-9

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

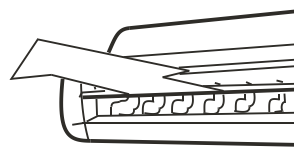


Fig.4-10

- **When heating**

Adjust the louver downward (vertically).

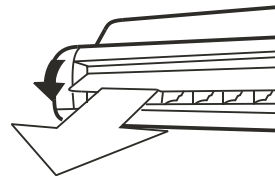


Fig.4-11

## ■ Console type

### ■ Adjust the air direction up and down

- **Auto-swing**

Press SWING and the louver will swing up and down automatically.

- **Manual swing**

Press Air Direction to fix the louver at the desired angle. The louver swing will move up or down with each press.

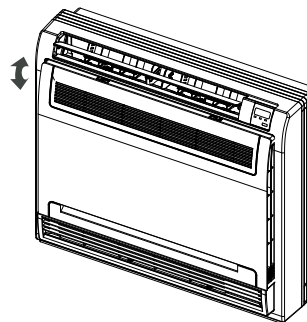


Fig.4-12

- **When cooling**

Adjust the louver horizontally. (Refer to Fig.4-13)

- **When heating**

Adjust the louver downward (vertically). (Refer to Fig.4-14)

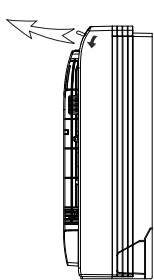


Fig.4-13

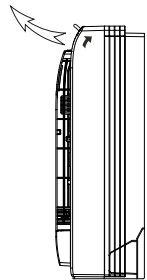


Fig.4-14



### CAUTION

Do not try to adjust the louver by hand, as doing so may cause a malfunction.

- **Adjust the air direction left and right**

To change the air direction to the left or right, adjust the left and right louvers to appropriate positions.

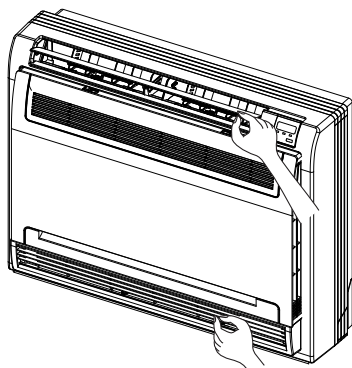


Fig.4-15

- **Air flow selection**

Open the front panel.  
(How to open the front panel: refer to Fig.5-6).



### CAUTION

Before opening the front panel, cut off power supply and turn the breaker to OFF.  
Do not touch the metal parts inside the indoor unit to avoid injury.


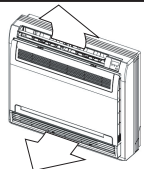

- Select the air flow as desired.
- When setting the air flow selection switch to , the air conditioner automatically decides the appropriate blowing pattern depending on the operating mode/ scenario.

Table 4-1

| Operating mode  | cooling mode  | heating mode  |   |   |
|-----------------|---|---|---|---|
| Situation       | When the room is cool or after running the air conditioner for one hour.  | At the start of the operation or at other times when the room is not fully cooled.  | At times other than those below. (Normal time.)   | At the start or when air temperature is low.                                    |
| Blowing pattern | Air is blown via the upper air outlet to equalize the room temperature, so the air doesn't directly blow onto people. |  | Air is blown from the upper and lower air outlets for high-speed cooling in cooling mode and for warming the air in heating mode. | Air is blown via the upper air outlet, so it doesn't directly blow onto people. |

- When setting the air outlet selection switch to  In all modes, air is expelled from the upper air outlet.  
Use this switch if you do not want air coming out of the lower air outlet (when sleeping).



### CAUTION

To switch between Auto and Manual mode on the lower air outlet, turn off the unit and restart it to reset the modes.

- **Floor standing type**

Adjust the louver to improve the cooling or heating effect.

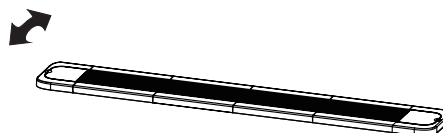


Fig.4-16

- **Two-way cassette type**

- **Auto-swing**

Press SWING and the louver will swing up and down automatically.

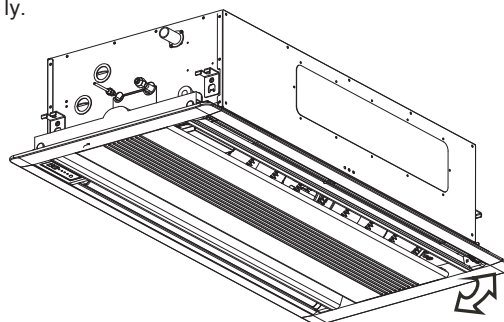


Fig.4-17

- **Manual swing**

Adjust the louver to improve cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.



Fig.4-18

- **When heating**

Adjust the louver downward (vertically).

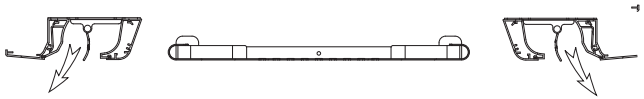


Fig.4-19



**CAUTION**

Do not move the horizontal louver with your hand, as doing so may cause a malfunction. The position of the horizontal louver should be adjusted by the SWING button on the wired controller.

## 5. MAINTENANCE



**CAUTION**

Before you clean the air conditioner, ensure it is powered off.

Check that the wiring is undamaged and connected.

Use a dry cloth to wipe the indoor unit and remote controller.

A wet cloth may be used to clean the indoor unit if it is very dirty.

Never use a damp cloth on the remote controller.

Do not use a chemically treated duster on the unit or leave this type of material on the unit to avoid damaging the finish.

Do not use benzene, thinner, polishing powder, or similar solvents for cleaning.

These may cause the plastic surface to crack or warp.

### ■ Method for cleaning the air filter

- The air filter can prevent the dust or other particles from entering the unit. If the filter is blocked, the unit will not work well. Clean the filter every two weeks when you use it regularly.
- If the air conditioner is positioned in a dusty place, clean the filter often.
- Replace the filter if it is too dusty to clean (the replaceable air filter is an optional fitting).

#### 1. Take out the air intake grille

- **For Four-Way Cassette Type**

Push the grille switches simultaneously, as indicated in Fig.5-1. Then pull down the air intake grille (together with the air filter, as shown in Fig.5-2). Pull the air intake grille down to 45°, and lift it up to remove the grille.

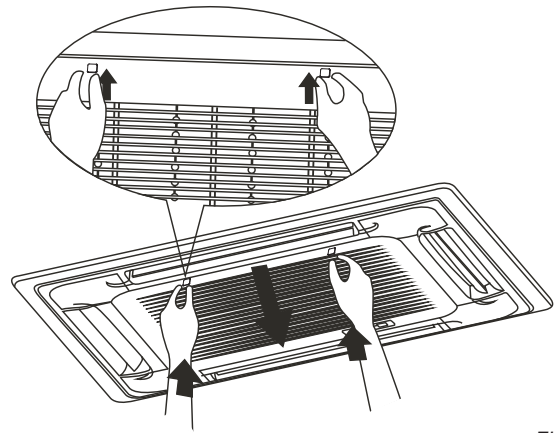


Fig.5-1

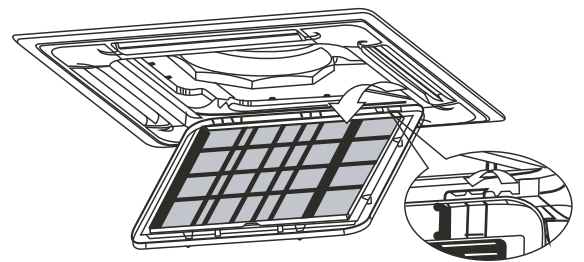


Fig.5-2



**CAUTION**

The control box cables originally connected to the electrical terminals on the main body must be removed, as indicated above.

● **For One-Way Cassette Type**

Remove the air intake grille, hold the air intake buckle with two hands and open the grille downwards, pull it to the inside, and push the filter buckle to remove the filter.

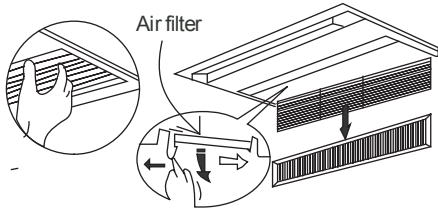


Fig.5-3

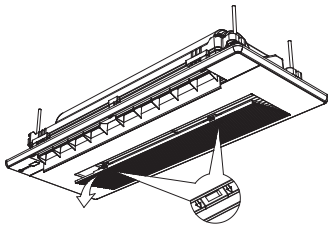


Fig.5-4

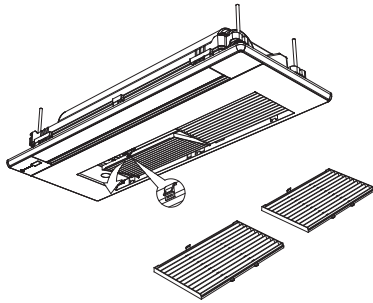


Fig.5-5

● **For Console Type**

Push the grille switches in the directions of the arrows. Then, open the air intake grille downwards. Press the claws on the right and left of the air filter down slightly, then pull them upwards.

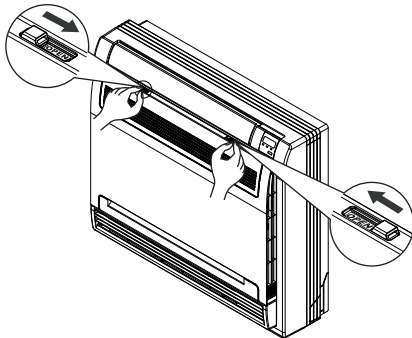


Fig.5-6

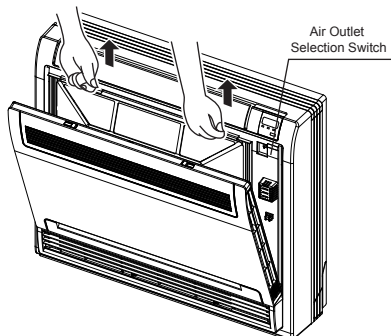


Fig.5-7

Hold the tabs of the frame, and remove the claws in the four places. (The special function filter can be maintained by washing it with water once every six months. We recommend replacing it once every three years.)

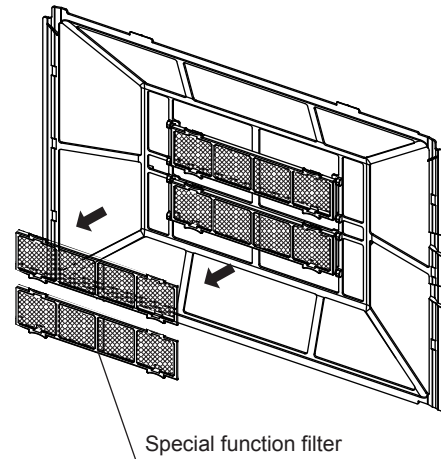


Fig.5-8

● **For Floor Standing type**

The filter is housed in the lower part of the unit in Version II and III to take in air from below or from rear. To remove the filter in versions II and III, perform the following steps.

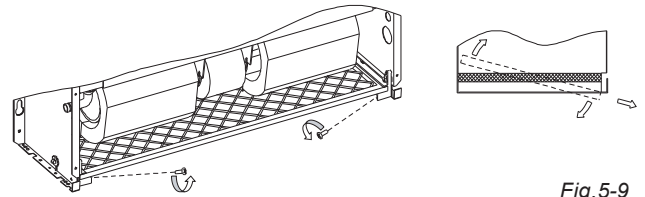


Fig.5-9

It is housed in the front panel in Version I to take in air from the front.

To remove the filter in Version I, do as follows.

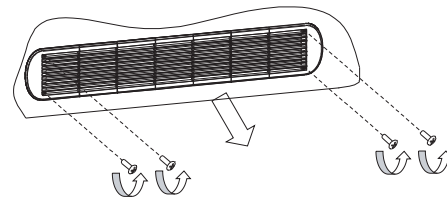


Fig.5-10

■ **Two-way Cassette type**

■ **Remove the air intake grille from the panel.**

- 1) Push the inhalation grating toward one side(non-directional), eg., rightwards as shown in Fig.5-11;
- 2) Press the right side of the inhalation grating and simultaneously push it rightward, as shown in Fig.5-11; at the same time, pull out the left side of the inhalation grating to an angle about 45°;
- 3) Slide the inhalation grating to remove it completely, as shown in Fig.5-12 and Fig.5-13.

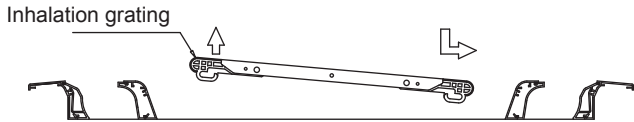


Fig.5-11

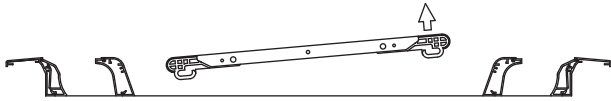


Fig.5-12

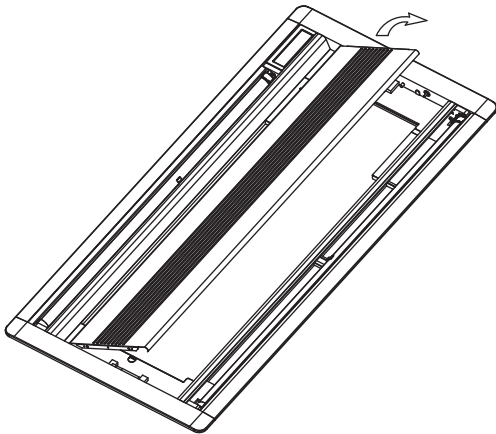


Fig.5-13

- Press the filter on one side and release it according to the arrows in below figure. Repeat above steps on the other side to remove the filter. Put it back after cleaning.

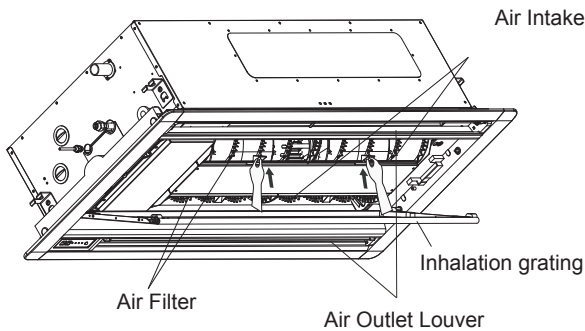


Fig.5-14

## 2. Dismantle the air filter.

## 3. Clean the air filter

Dusts will accumulate on the filter along with the unit operation, and need to be removed from the filter, or the unit would not function effectively.

Clean the filter every two weeks when you use the unit regularly.

Clean the air filter with a vacuum cleaner or water.

- The air intake side should face up when using a vacuum cleaner. (Refer to Fig.5-15)
- The air intake side should face down when using clean water. (Refer to Fig.5-16)

For excessive dusts, use a soft brush and natural detergent to clean it and dry in a cool place.

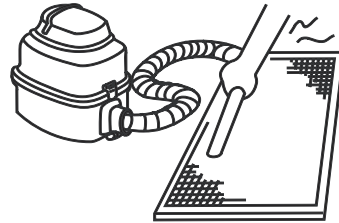


Fig.5-15

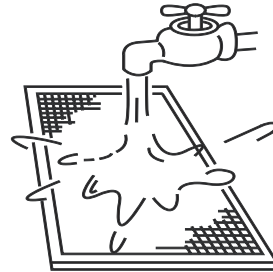


Fig.5-16



## CAUTION

Do not dry out the air filter under direct sunshine or with fire.

For one-way cassette type, the air filter should be installed before the unit body.

## 4. Re-install the air filter.

## 5. Install and close the air inlet grille by reversing steps 1 and 2, and connect the control box cables to the corresponding terminals in the main body.

## ■ Maintenance before stopping using the unit for a long time (e.g., at the end of a season)

Let the indoor units run in fan only mode for about half a day to dry the interior of the unit.

Clean the air filter and indoor unit casing.

Refer to "Cleaning the air filter" for details. Install cleaned air filters back in their original positions.

Turn off the unit with the ON/OFF button on the remote controller, and then unplug it.



## NOTE

When the power switch is connected, some energy will be consumed even if the unit is not running. Disconnect the power to save energy.

A degree of dirt will accumulate when the unit has been used several times, which will require cleaning.

Take out of the batteries from the remote controller.

## ■ Maintenance after a long period of non-use

Check for and remove anything that might be blocking the inlet and outlet vents of the indoor units and outdoor units.

Clean the unit casing and clean the filter. Refer to [Cleaning the filter] and "Cleaning the filter" for instructions. Re-install the filter before running the unit.

Turn on the power at least 12 hours before you want to use the unit to ensure it works properly. As soon as the power is turned on, the remote control display appears.

## 6. SYMPTOMS THAT ARE NOT FAULTS

The following symptoms may be experienced during the normal operation of the unit and are not considered faults. Note: If you are not sure whether a fault has occurred, contact your supplier or service engineer immediately.

### Symptom 1: The unit will not run

- Symptom: When the ON/OFF button on the remote controller is pressed, the unit does not immediately start running.  
Cause: To protect certain system components, system start-up or re-start is intentionally delayed for up to 12 minutes under some operating conditions. If the OPERATION LED on the unit's panel is lighting, the system is working normally and the unit will start after the intentional delay is complete.
- Heating mode is running when the following panel lights are on: operation and the "DEF./FAN LED indicator (cooling and heating type) or the fan only indicator (cooling only type)". When it starts but the compressor does not, the indoor unit activates protective measures because of the outlet temperature.

### Symptom 2: The unit emits white mist

- White mist is generated and emitted when the unit starts to operate in a very humid environment. This phenomenon will stop once the humidity in the room is reduced to normal levels.
- The unit occasionally emits white mist when it runs in heating mode. This occurs when the system finishes periodic defrosting. Moisture that may accumulate on the unit's heat exchanger coil during defrosting becomes mist and is emitted from the unit.

### Symptom 3: The unit emits sounds

- A continuous sound (other than that made by the unit's fan) is heard when the unit is running in cooling mode. This is caused by the unit's drain pump (on units that have a drain pump).
- A squeaking sound is heard when the unit stops after running in heating mode. This is caused by plastic components cooling down and contracting.
- A slight hissing sound is heard when the unit is running. This is the sound of refrigerant flowing through the unit and through the piping that connects the unit to the rest of the system. This sound is more noticeable when the unit starts/stops running and the flow of refrigerant begins/ceases.

### Symptom 4: Dust is emitted from the unit

- This can occur when the unit first runs after a long idle period.

### Symptom 5: The unit gives off a strange odor

- If smells such as those of strong-smelling food or tobacco smoke are present in the room, they can enter the unit, leave trace deposits on the unit's internal components, and later be emitted from the unit.

## 7. TROUBLESHOOTING

### 7.1 General

Sections 7.2 and 7.3 describe some initial troubleshooting steps that can be taken when an error occurs. If these steps do not resolve the issue, arrange for a professional technician to investigate the problem. Do not attempt further investigations or troubleshooting yourself.

If any of the following errors occur, power the unit off, contact a professional technician immediately and do not attempt troubleshooting yourself:

- A safety device such as a fuse or circuit breaker frequently blows/trips.
- An object or water enters the unit.
- Water is leaking from the unit.



## WARNING

Do not attempt to inspect or repair this unit yourself. Arrange for a qualified technician to carry out all servicing and maintenance.

## 7.2 Unit troubleshooting

Table 7-1

| Symptom                             | Possible causes  | Troubleshooting steps  |
|-------------------------------------|--|--|
| The unit does not start             | <ul style="list-style-type: none"> <li>- A power cut has occurred (the power to the premises has been cut-off).</li> <li>- The unit is powered off.</li> <li>- The power switch fuse may have burned out.</li> <li>- The remote controller's batteries are dead.</li> </ul>  | <ul style="list-style-type: none"> <li>- Wait for the power to come back on.</li> <li>- Power on the unit. This indoor unit forms part of an air conditioning system that has multiple indoor units that are all connected. The indoor units cannot be powered on individually - they are all connected to one, single power switch. Ask a professional technician for advice regarding how to safely power on the units.</li> <li>- Replace the fuse.</li> <li>- Replace the batteries.</li> </ul>              |
| Air flows normally but doesn't cool | <ul style="list-style-type: none"> <li>- The temperature setting is not correct.</li> </ul>  | <ul style="list-style-type: none"> <li>- Set the desired temperature on the remote controller.</li> </ul>  |
| The unit starts or stops frequently | Arrange for a professional technician to check the following: <ul style="list-style-type: none"> <li>- Too much or too little refrigerant.</li> <li>- No gas in the refrigerant circuit.</li> <li>- The outdoor unit compressors have malfunctioned.</li> <li>- The power supply voltage is too high or too low.</li> <li>- There is a blockage in the piping system.</li> </ul> |  |
| Low cooling effect                  | <ul style="list-style-type: none"> <li>- Doors or windows are open.</li> <li>- Sunlight is shining directly onto the unit.</li> <li>- The room contains many heat sources such as computers or refrigerators.</li> <li>- The unit's air filter is dirty.</li> <li>- The outside temperature is unusually high.</li> </ul>  | <ul style="list-style-type: none"> <li>- Close the doors and windows.</li> <li>- Close shutters/blinds to shield the unit from direct sunlight.</li> <li>- Turn off some of the computers during the hottest part of the day.</li> <li>- Clean the filter.</li> <li>- The cooling capacity of the system reduces as the outdoor temperature rises and the system may not provide sufficient cooling if the local climate conditions are not considered when the system's outdoor units were selected.</li> </ul> |
|                                     | Engage a professional air conditioning engineer to check the following: <ul style="list-style-type: none"> <li>- The unit's heat exchanger is dirty.</li> <li>- The unit's air inlet or outlet is blocked.</li> <li>- A refrigerant leak has occurred.</li> </ul>  |  |
| Low heating effect                  | <ul style="list-style-type: none"> <li>- Doors or windows are not completely closed.</li> </ul>  | <ul style="list-style-type: none"> <li>- Close doors and windows.</li> </ul>   |
|                                     | Arrange for a professional technician to check the following: <ul style="list-style-type: none"> <li>- A refrigerant leak has occurred.</li> </ul>   |  |

## 7.3 Remote controller troubleshooting



### WARNING

Certain troubleshooting steps that a professional technician may perform when investigating an error are described in this owner's manual for reference only. Do not attempt to undertake these steps yourself – arrange for a professional technician to investigate the problem.

If any of the following errors occur, power the unit off and contact a professional technician immediately. Do not attempt troubleshooting yourself:

- A safety device such as a fuse or circuit breaker frequently blows/trips.
- An object or water enters the unit.
- Water is leaking from the unit.

Table 7-2

| Symptom   | Possible causes  | Troubleshooting steps   |
|---|--|---|
| The fan speed cannot be adjusted  | - Check whether the MODE indicated on the display is "AUTO".   | - In automatic mode, the air conditioner will automatically change the fan's speed.   |
|   | - Check whether the MODE indicated on the display is "DRY".  | - When dry mode is selected, the air conditioner automatically adjusts the fan speed. (The fan speed can be selected during "COOL", "FAN ONLY", and "HEAT".)    |
| The remote controller signal is not transmitted even when the ON/OFF button is pushed | - A power cut has occurred (the power to the premises has been cut-off).<br>- The remote controller's batteries are dead.  | - Wait for the power to come back on.<br>- Replace the batteries.   |
| The indication on the display disappears after a certain time                         | - Check whether the timer operation has come to an end when TIMER OFF is indicated on the display.   | - The air conditioner operation will stop up to the set time.   |
| The TIMER ON indicator goes off after a certain time                                  | - Check whether the timer operation has come to an end when TIMER ON is indicated on the display.  | - Up to the set time, the air conditioner will automatically start and the appropriate indicator will go off.   |
| No receiving sound from the indoor unit when the ON/OFF button is pressed             | - Check whether the signal transmitter of the remote controller is properly directed to the infrared signal receiver of the indoor unit when the ON/OFF button is pressed. | - Directly transmit the signal transmitter of the remote controller to the infrared signal receiver of the indoor unit, and then press the ON/OFF button twice. |



## 7.4 Error codes

With the exception of a mode conflict error, contact your supplier or service engineer if any of the error codes listed in Table 7-3 are displayed on the unit's display panel. If the mode conflict error is displayed and persists, contact your supplier or service engineer. These errors should only be investigated by a professional technician. The descriptions are provided in this owner's manual for reference only.

Table.7-3

Error Code Table

| NO. | Content  | Display output                |                 | Possible causes  |
|-----|--|-------------------------------|-----------------|--|
|     |  | Four LED display              | Digital display |  |
| 1   | Mode conflict  | DEF./FAN LED flashes rapidly  | E0              | <ul style="list-style-type: none"> <li>■ The indoor unit's operating mode conflicts with that of the outdoor units.</li> </ul>   |
| 2   | Communication error between indoor and outdoor units     | TIMER LED flashes rapidly     | E1              | <ul style="list-style-type: none"> <li>■ Communication wires between indoor and outdoor units not connected properly.</li> <li>■ Interference from high voltage wires or other sources of electromagnetic radiation.</li> <li>■ Communication wire too long.</li> <li>■ Damaged main PCB.</li> </ul> |
| 3   | Indoor ambient temperature sensor error                  | OPERATION LED flashes rapidly | E2              | <ul style="list-style-type: none"> <li>■ Temperature sensor not connected properly or has malfunctioned.</li> <li>■ Damaged main PCB.</li> </ul>   |
| 4   | Indoor heat exchanger mid-point temperature sensor error | OPERATION LED flashes rapidly | E3              |  |
| 5   | Indoor heat exchanger outlet temperature sensor error    | OPERATION LED flashes rapidly | E4              |  |
| 6   | Fan error  | TIMER LED flashes rapidly     | E6              | <ul style="list-style-type: none"> <li>■ Fan stuck or blocked.</li> <li>■ Fan motor not connected properly or has malfunctioned.</li> <li>■ Power supply abnormal.</li> <li>■ Damaged main PCB.</li> </ul>   |
| 7   | EEPROM mismatch  | DEF./FAN LED flashes rapidly  | E7              | <ul style="list-style-type: none"> <li>■ Damaged main PCB.</li> </ul>  |
| 8   | EEV error  | /                             | Eb              | <ul style="list-style-type: none"> <li>■ Line loosened or broken.</li> <li>■ The electronic expansion valve in stuck.</li> <li>■ Damaged main PCB.</li> </ul>  |
| 9   | Outdoor unit error                                       | ALARM LED flashes slowly      | Ed              | <ul style="list-style-type: none"> <li>■ Outdoor unit error.</li> </ul>  |
| 10  | Water level error  | ALARM LED flashes slowly      | EE              | <ul style="list-style-type: none"> <li>■ Water level float stuck.</li> <li>■ Water level switch not connected properly.</li> <li>■ Damaged main PCB.</li> <li>■ Drain pump has malfunctioned.</li> </ul>   |
| 11  | The indoor unit has not been assigned an address         | OPERATION LED flashes rapidly | FE              | <ul style="list-style-type: none"> <li>■ Indoor unit has not been assigned an address.</li> </ul>  |

**Notes:**

Flashing rapidly means flashing twice per second; flashing slowly means flashing once per second.

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