



FULL DC INVERTER SYSTEMS

USER MANUAL

INDOOR UNITS SDV5

COMMERCIAL AIR CONDITIONERS SDV5

Original instructions

IMPORTANT NOTE:

Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

CONTENTS	PAGE
IMPORTANT SAFETY INFORMATION.....	1
PARTS NAMES.....	2
AIR CONDITIONER OPERATIONS AND PERFORMANCE.....	5
ADJUSTING AIR FLOW DIRECTION.....	6
MAINTENANCE.....	10
POTENTIAL PROBLEMS.....	13
TROUBLESHOOTING.....	14

1. IMPORTANT SAFETY INFORMATION

To prevent injury or property damage from mis-operations, follow these instructions.

There are two types of safety precautions - please read both carefully.



WARNING

Failure to observe a warning may result in serious injury or death. The appliance must be installed in accordance with national wiring regulations.



CAUTION

Failure to observe a caution may result in injury or damage to the equipment.



WARNING

The appliance should not be used by children without supervision.

Children under 8 or those with a disability that prevents safe use should not use the air conditioner. Other children should be supervised when cleaning or using the unit.

Ask your dealer to install the air conditioner.

If you install the unit incorrectly yourself, you risk water leaks, electric shock, and fires.

Ask your dealer for information about upgrades, repairs, and maintenance.

To avoid electric shocks, fires, and injury, power the unit off and contact your dealer if the unit becomes faulty.

If you perform these tasks yourself, you risk water leaks, electric shock, and fires.

Do not let the indoor unit or remote controller come into contact with water.

Contact with water increases the risks of electric shocks or fires.

Do not press the remote controller buttons with a hard, pointed object.

The remote controller may be damaged.

Never replace a blown fuse with another that has a different current rating.

Using wire or copper wire may cause the unit to break down or cause a fire.

Avoid excessive direct exposure to the air flow.

Never use flammable sprays such as hair spray, lacquers, or paint near the unit because doing so may result in a fire.

It may cause a fire.

Never touch the air outlet or horizontal blades while the swing flap is in use because your fingers may become trapped or you might damage the unit.

Never put any objects into the air inlet or outlet.

Do not touch the fan with any object.

Do not inspect or service the unit yourself.

Ask a qualified service person to perform these tasks.

Do not dispose this product as unsorted waste. It must be separately collected and processed.



Do not dispose of electrical appliances as unsorted waste. They must be separately collected and processed.

Contact your local government for details.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and thus enter the food chain.

For information about refrigerant leaks, contact your dealer.

When the system is installed in a small room, keep the refrigerant below the limit; otherwise, if there's a leak, the oxygen in the room may be affected, causing a serious accident.

The refrigerant in the unit is safe and should not leak.

If it does and comes into contact with fire, a harmful gas will result.

Turn off any combustible heating devices, ventilate the room, and contact the dealer you purchased the unit from.

Do not use the unit until a technician instructs you that it's safe to do so.



CAUTION

The heating function of the indoor unit is available only when the indoor unit connected to the outdoor unit for cooling and heating.

Only use the air conditioner for its prescribed purpose.

Do not use it for cooling precision instruments, food, plants, animals, or art, or you may damage the unit.

Power the unit off before cleaning it to avoid electric shocks.

Otherwise, an electric shock and injury may result.

To avoid electric shocks or fires, install an earth leak detector.

Ensure the unit is grounded.

To avoid electric shocks, ensure the unit is grounded and that the earth wire is not connected to a gas or water pipe, lightning conductor, or telephone earth wire.

To avoid injury, do not remove the fan guard on the outdoor unit.

Do not use the unit if your hands are wet.

Doing so puts you at risk of an electric shock.

Do not touch the heat exchanger fins.

These fins are sharp and you could cut you.

Do not place items which might be damaged by moisture under the indoor unit.

Condensation may form if the humidity is above 80 percent, if the drain outlet is blocked or if the filter is polluted.

Check the unit stand and fitting for damage after the unit has been running for a long time.

If the stand is damaged, the unit may fall and cause an injury.

To avoid oxygen deficiency, ventilate the room sufficiently if equipment with a burner is used at the same time as the air conditioner.

Arrange the drainage hose to ensure smooth drainage.

Incomplete drainage may cause water leaks.

Do not touch the internal parts of the controller.

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

Never expose little children, plants or animals directly to the air flow.

Never expose children, plants or animals directly to the air flow.

Do not allow a child to mount on the outdoor unit and don't place objects on it to avoid injury.

Falling or tumbling may result in injury.

Do not run the air conditioner when fumigating a room with insecticide as chemicals could get in the unit, causing respiratory problems for people affected.

Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.

Do not place appliances that produce open fire in places in the path of the air flow from the unit or under the indoor unit due to the risk of combustion or warping.

It may cause incomplete combustion or deformation of the unit due to the heat.

To avoid fire, do not install the air conditioner where flammable gas may leak from.

If the gas leaks out and stays around the air conditioner, a fire may break out.

Children and the elderly should not operate the unit.



NOTE

The figures show in this manual are for reference only, and the actual product may be different.

2. PART NAMES

■ Four-way cassette type

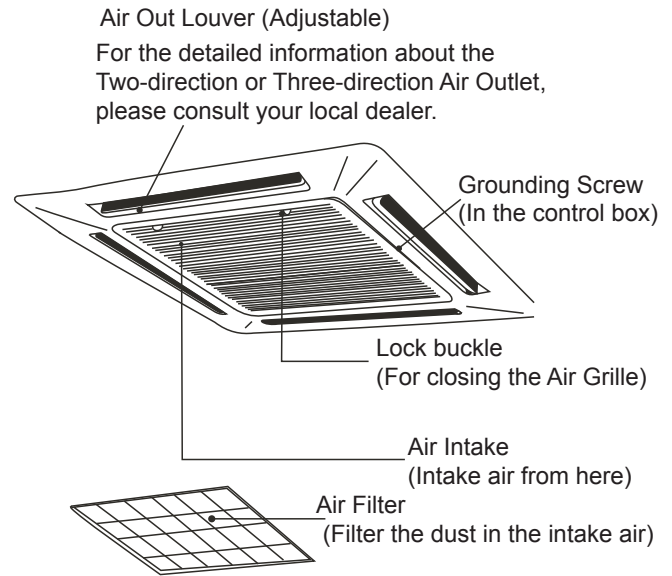


Fig.2-1

■ Ceiling-floor type

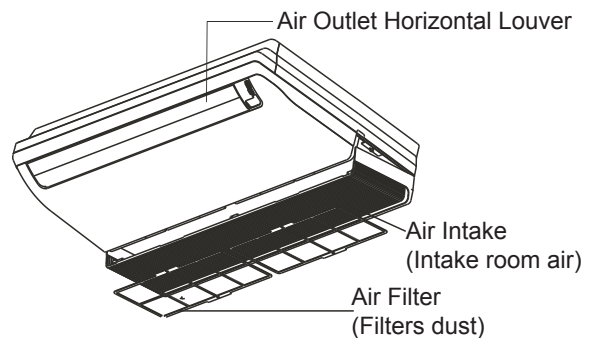


Fig.2-2

■ One-way cassette type

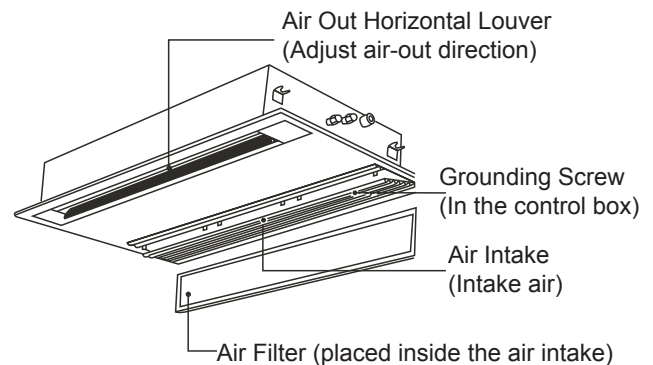


Fig.2-3

■ **Small one-way cassette type**

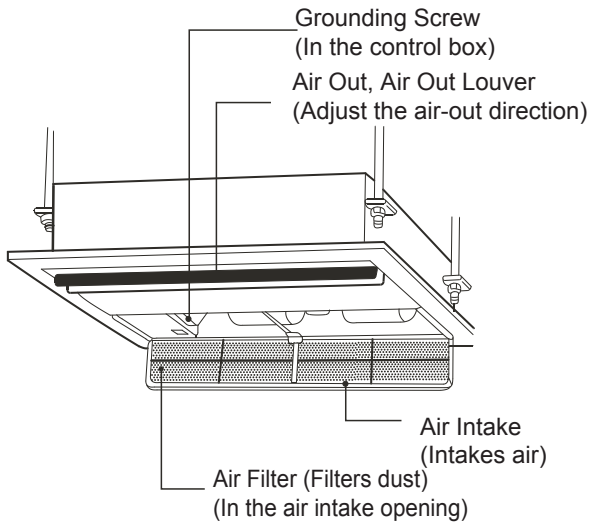


Fig.2-4

■ **Small one-way cassette type**
 (Second generation 18-36 model)

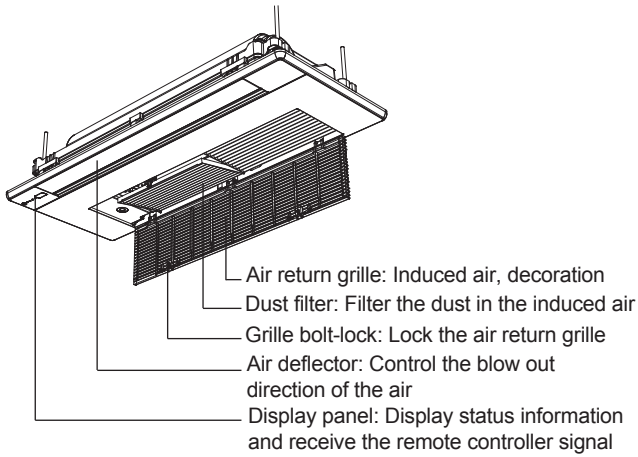


Fig.2-5

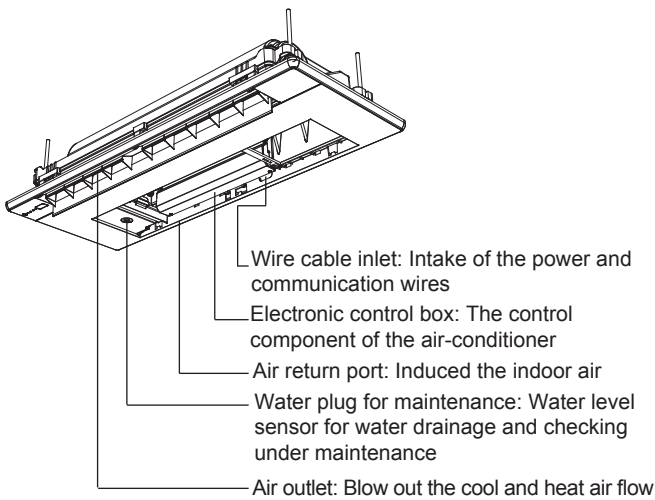


Fig.2-6

■ **Wall-mounted type**

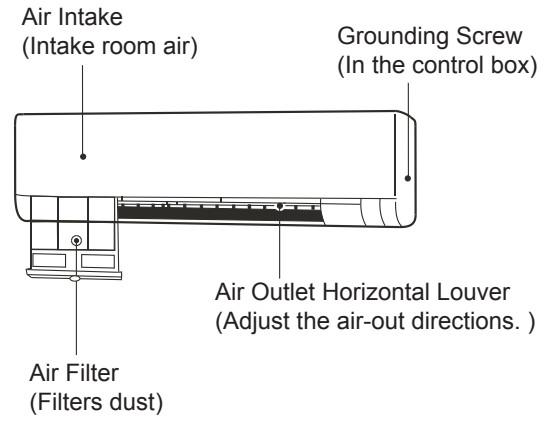


Fig.2-7

■ **Duct/ceiling type**

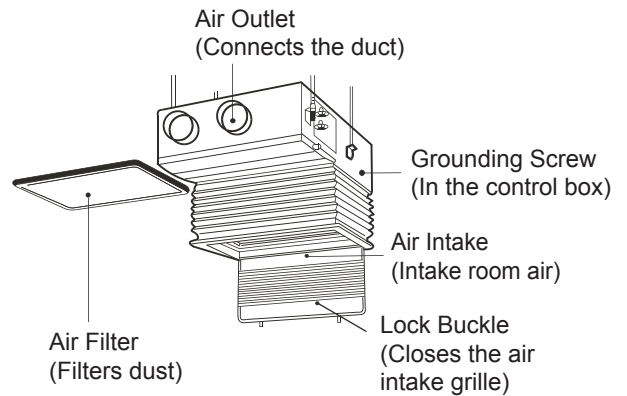


Fig.2-8

■ **High static pressure duct type**

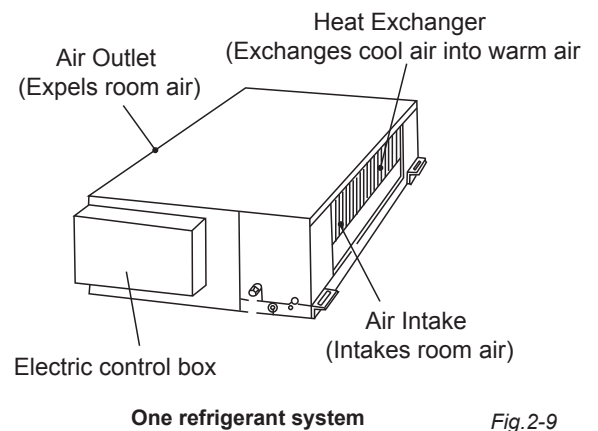


Fig.2-9

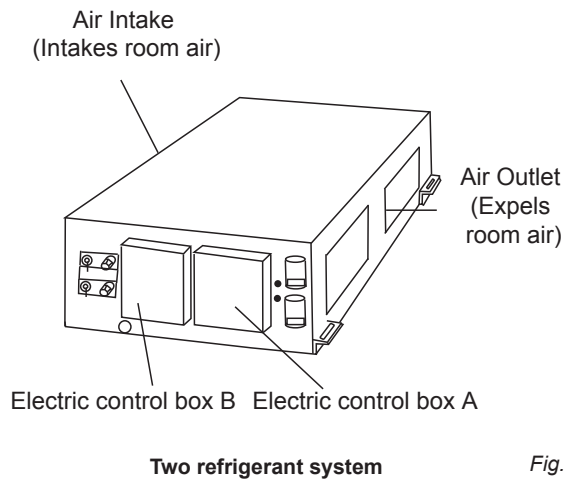


Fig.2-10

■ Middle static pressure duct type

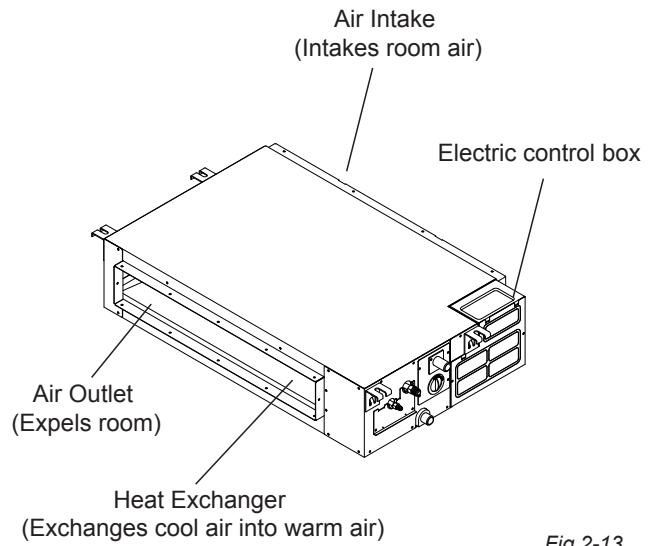


Fig.2-13

■ (Thin) Duct/ceiling type

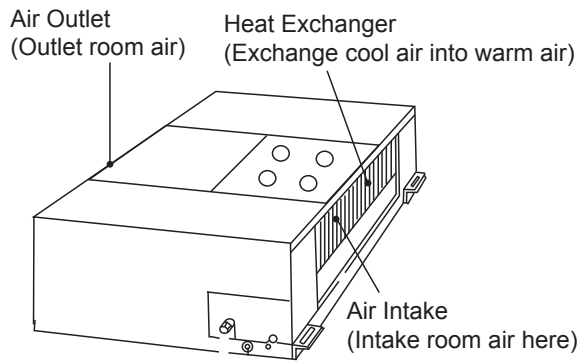


Fig.2-11

■ Low static pressure type

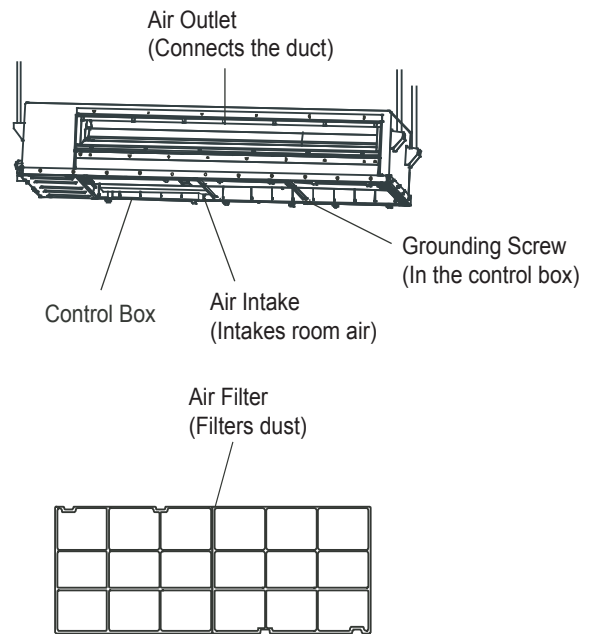


Fig.2-14

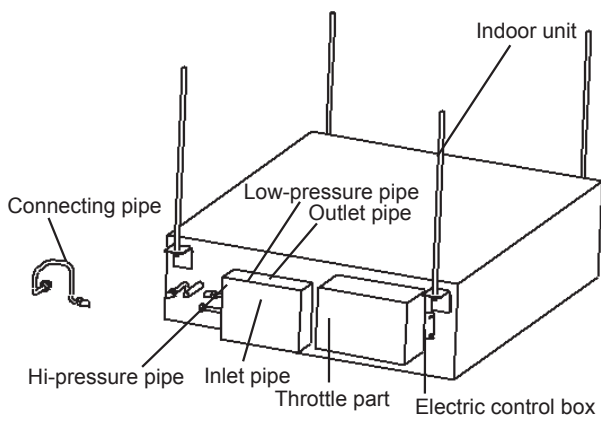


Fig.2-12

■ Console type

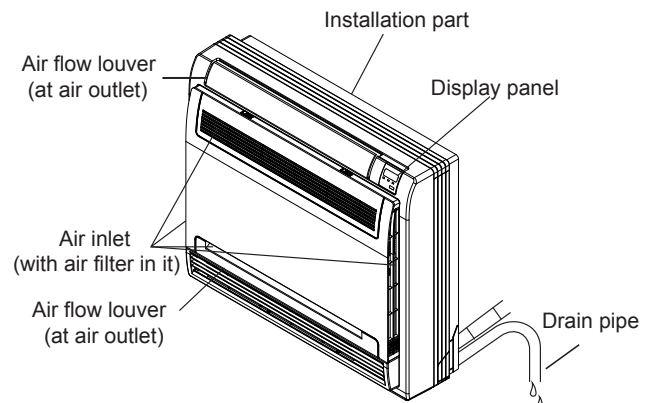


Fig.2-15

■ Floor standing type

● Version I

Vertical unit with casing. The air intake is on the front and the air outlet on top for installing on a wall or with feet on the floor.

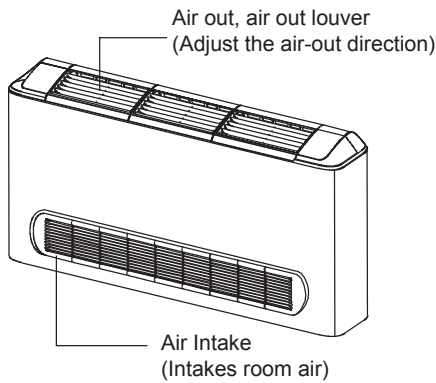


Fig.2-16

■ Two-way cassette type

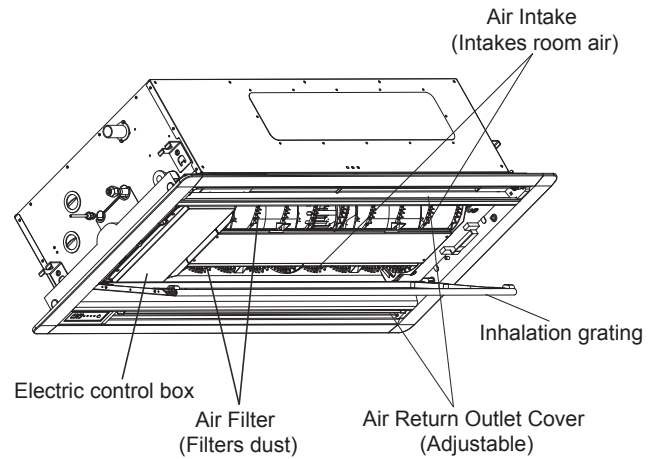


Fig.2-19

● Version II

Vertical unit with casing. The air intake is on the front and the air outlet on top for installing on a wall or with feet on the floor.

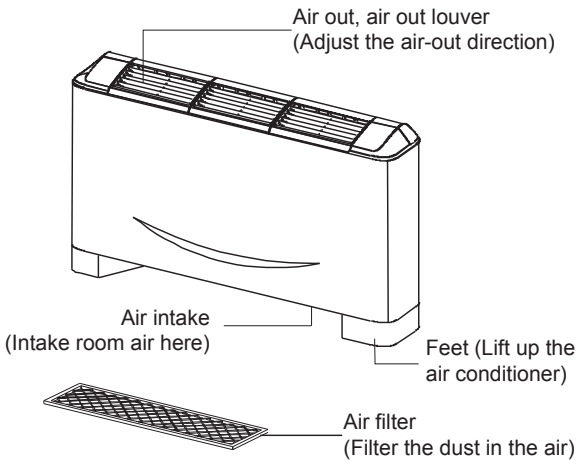


Fig.2-17

● Version III

The vertical unit is concealed in the wall after installation, with air intake from the bottom and air delivery at the top.

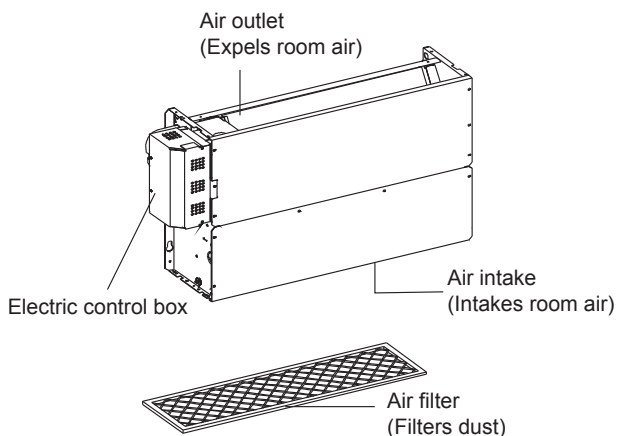


Fig.2-18

3. AIR CONDITIONER OPERATIONS AND PERFORMANCE

Use the system in the following temperature range. The max temperature for the air conditioner.(Cooling/Heating)

Table 3-1

Temperature / Mode	Indoor temperature
Cooling operation	17°C ~ 32°C
Heating operating (cooling only type without)	≤27°C
	Indoor Humidity Below 80%. Condensation will form on the surface with 80% humidity or above.

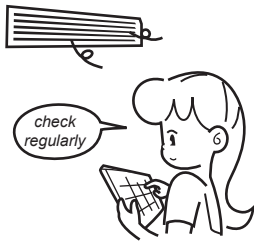


NOTE

- 1 Using the unit outside of the accepted range may affect how it runs.
- 2 Please close doors and windows if outside is humid to prevent condensation from forming on the unit.
- 3 The unit performs best in this temperature range.
- 4 The protection system is activated if abnormal conditions apply.

■ Please note the following correct operation for saving energy and achieve the quick and comfortable cooling/heating effect.

● If the air filter is blocked, the cooling/heating effect is diminished.



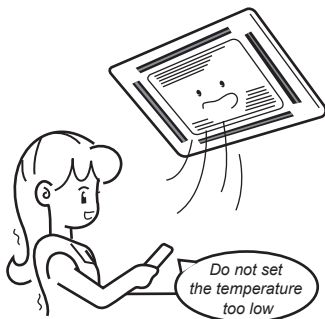
● Close the door/window

Do not let hot or cool air leak from the doors and windows.



● Do not overcool or overheat.

Avoid excessive exposure to cold air as it is not healthy. This applies especially to children, the elderly, and those with disabilities.



● To maintain a comfortable temperature.

Adjust the air-out direction using the air-out louver.



4. ADJUSTING AIR FLOW DIRECTION.

Because cold air flows down and hot air flows up, you can improve the cooling or heating and dispersal effect by adjusting the air flow louver direction.



NOTE

- 1 The heating operation with horizontal air outlet increases the difference of the room temperature.
- 2 The louver direction :
Choose horizontal outlet mode for cooling. Note the downward air flow will cause condensation on the air outlet and louver surface.

■ Four-way cassette type

● Cooling operation

Adjust the louver horizontally .



Fig.4-1

● Heating operation

Adjust the louver down.

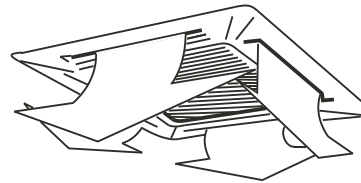


Fig.4-2

When using the panel with the auto louver, press SWING for the auto louver to swing automatically and achieve the best cooling (heating) effect.

■ One-way cassette type

■ Adjust the air direction up and down

● Auto-swing

Press SWING for the louver to swing up and down.

Maximum air circulation area

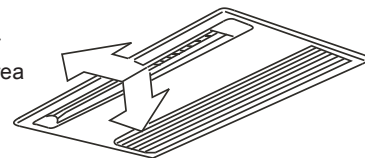


Fig.4-3

● **When cooling**

Adjust the louver horizontally.

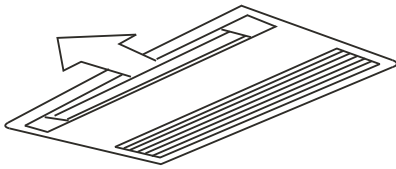


Fig.4-4

● **When heating**

Adjust the louver down(vertically).

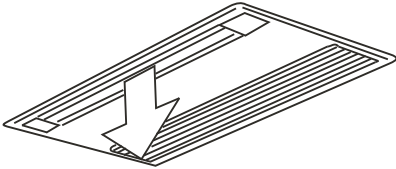


Fig.4-5

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

Adjust the blade inside the air outlet louver to the required direction.

When the air flow sideways and the air flow parts must be used (sold separately), please refer to the following figures to adjust the air flow direction.

■ **Adjust the air flow up and down**

● **Cooling operation**

Adjust the louver horizontally .

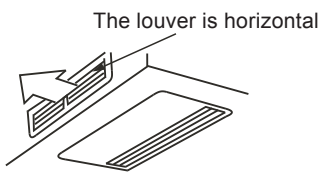


Fig.4-6

● **When heating**

Adjust the louver down(vertically).

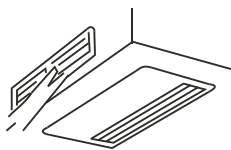


Fig.4-7

■ **Adjust left and right**

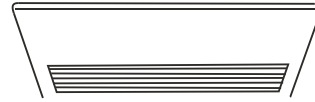
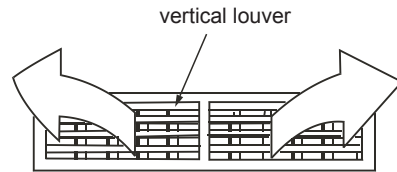
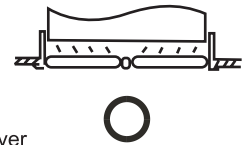
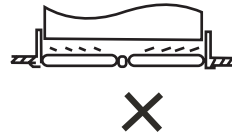


Fig.4-8



NOTE

When adjusting air flow left/right, refer to the following figures to turn the vertical louver to certain angles. Avoid angles that are too steep or water will drip from the unit.



vertical louver

■ **Duct-ceiling type**

The following section explains how to adjust the direction of air flow direction when the air outlet parts (sold separately) is used with the indoor unit.

● **When cooling**

To cool the bottom of the room, set the louver downwards. (Fig.4-9)

● **When heating**

To heat the bottom of the room, set the louver downwards. (Fig.4-10)

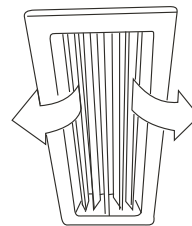


Fig.4-9

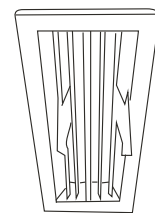
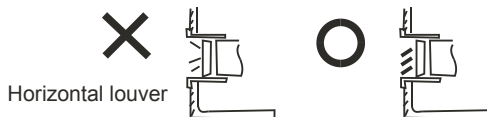


Fig.4-10



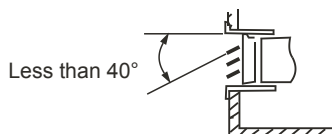
NOTE

1 Adjust the horizontal louver down when the air flow is down.



Horizontal louver

2 The slant angle of horizontal louver must be less than 40° or water will drip from the unit.



■ Wall-Mounted type

Adjust the Air Flow Direction Up and Down

- **Auto-swing**

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

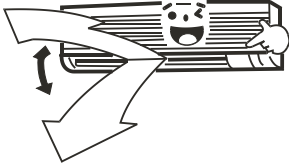


Fig.4-11

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

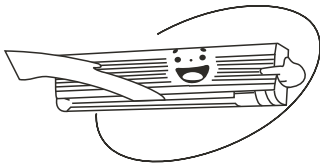


Fig.4-12

- **When heating**

Adjust the louver downwards (vertically).

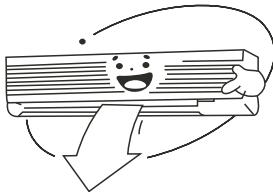


Fig.4-13



CAUTION

- 1 Water may drip from the surface of the unit or horizontal louver when cooling if the expel-air direction is vertically down.
- 2 The indoor temperature will not be even in heating mode when the air-out direction is horizontal.
- 3 Do not move the horizontal louver with hands or a malfunction may occur. Adjust it with the swing button on the wire controller.

■ Ceiling-floor type

- **Auto-swing**

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

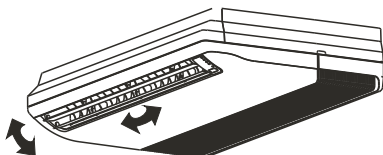


Fig.4-14

- **Manual swing**

Adjust the louver to improve the cooling or heating effect.

- **When cooling**

Adjust the louver horizontally.

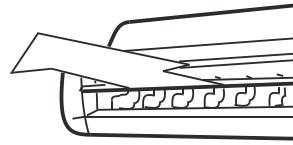


Fig.4-15

- **When heating**

Adjust the louver downwards (vertically).

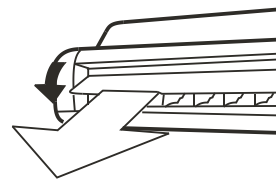


Fig.4-16

■ Console type

- **Adjust the air direction up and down**

- **Auto-swing**

Press SWING for 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.

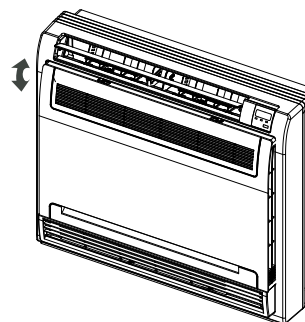


Fig.4-17

- **When cooling**

Adjust the louver horizontally. (Refer to Fig. 4-18)

- **When heating**

Adjust the louver downwards (vertically). (Refer to Fig. 4-19)

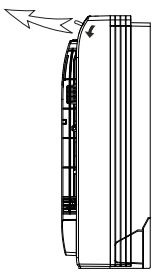


Fig. 4-18

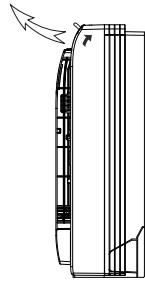


Fig. 4-19



CAUTION

Do not adjust the horizontal louver by hand. When adjusting by hand, the mechanism may not operate properly or condensation may drip from the air outlets.

- **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.

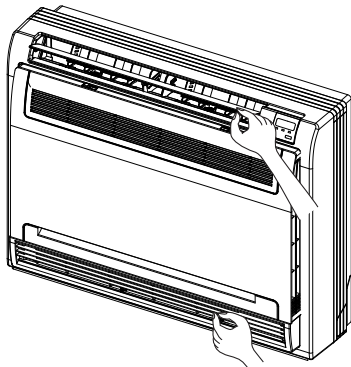


Fig. 4-20

- **Air flow selection**

Open the front panel.
How to open the front panel: (Refer to Fig. 5-4).



CAUTION

Before opening the front panel, turn the machine off and turn the breaker to OFF.
Do not touch the metal parts on the inside of the indoor unit, as it may cause injury.


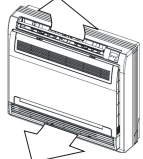

- Select the air flow as desired. (Please refer to Fig. 7-2 for the positions)
- When setting the air flow selection switch to .
Air conditioner automatically decides the appropriate blowing pattern depending on the operating mode/ situation.

Table 4-1

Operating mode	COOL mode	HEAT mode		
Situation	When the room is cool or after running the air conditioner for one hour.	At the start of the operation or other times when the room is not fully cooled.	At times except 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 and 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.

Air is blown via the upper air outlet so it doesn't directly blow onto people in Dry mode.

- 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 etc).



CAUTION

To switch between the Auto and Manual mode on the lower air outlet, turn off and restart the unit for mode renewing.

- **Digital scroll floor standing type**

Adjust the louver to improve the cooling or heating effect.

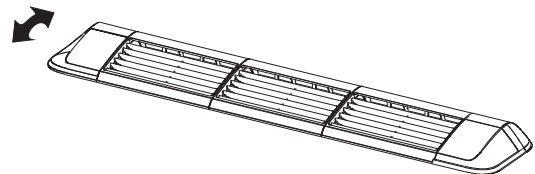


Fig. 4-21

- **Two-way cassette type**

- **Auto-swing**

Press SWING for the louver to swing up and down automatically.

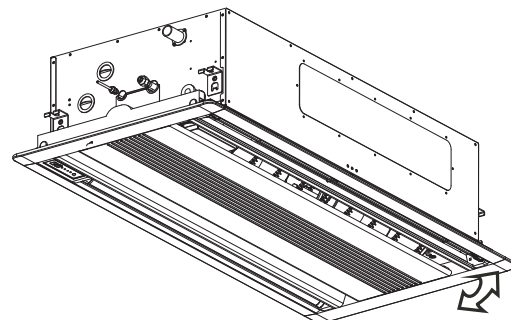


Fig. 4-22

- **Manual swing**

Adjust the louver to improve cooling or heating.

- **When cooling**

Adjust the louver horizontally.

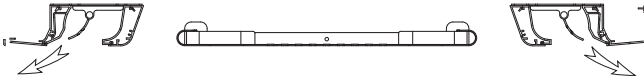


Fig.4-23

- **When heating**

Adjust the louver downwards (vertically).

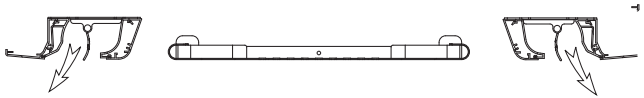


Fig.4-24



CAUTION

Do not try to adjust the louver by hand.
When adjusting it by hand, the mechanism may not work properly or condensation may drip from air outlets.

5. MAINTENANCE



CAUTION

- 1 Before you clean the air conditioner, ensure it is powered off.
- 2 Check that the wiring is undamaged and connected.
- 3 Use a dry cloth to wipe the indoor unit and remote controller.
- 4 A wet cloth may be used to clean the indoor unit if it is very dirty.
- 5 Never use a damp cloth on the remote controller.
- 6 Do not use a chemically-treated duster on the unit or leave this type of material to the unit to avoid damaging the finish.
- 7 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 very 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 more often.
- Replace the filter if it is too dusty too clean (the replaceable air filter is an optional fitting).

1. Take out the air-in grill

- **For Four-Way Cassette Type**

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

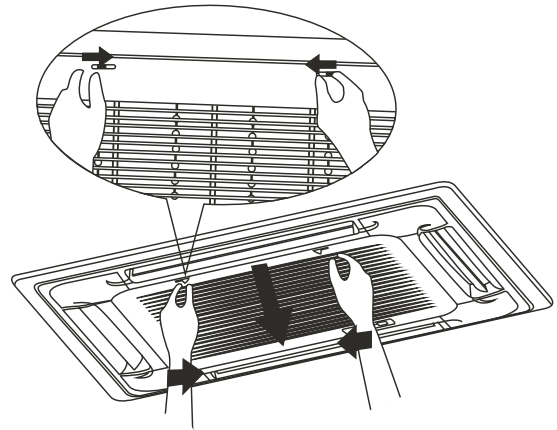


Fig.5-1

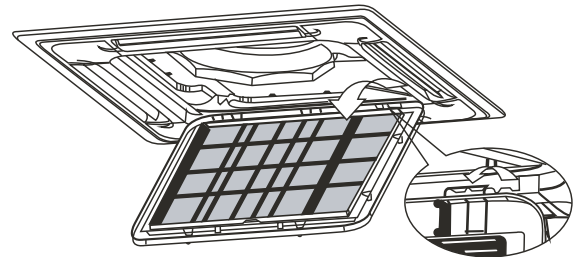


Fig.5-2



CAUTION

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

- **For Duct/Ceiling Type**

Push the grill switches in the directions of the arrows. Then, open the air-in grille downwards. Turn the air filter fixing block backwards, and remove the air-in grill.

- **For One-Way Cassette Type**

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

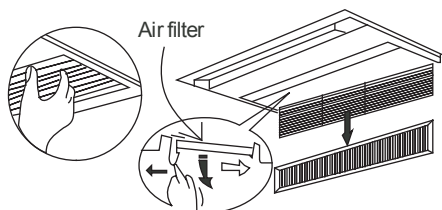


Fig. 5-3

- **For One-Way Cassette Type**

(The second generation 18-36 model)

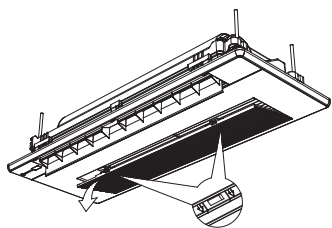


Fig. 5-4

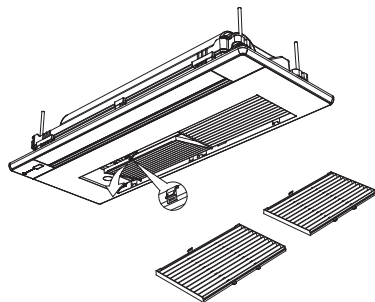


Fig. 5-5

- **For Console Type**

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

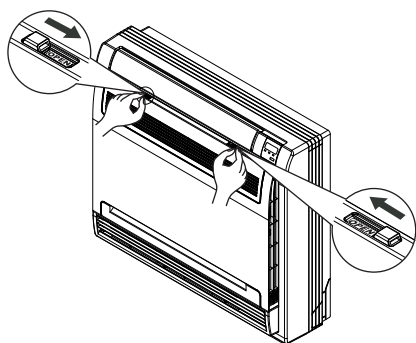


Fig. 5-6

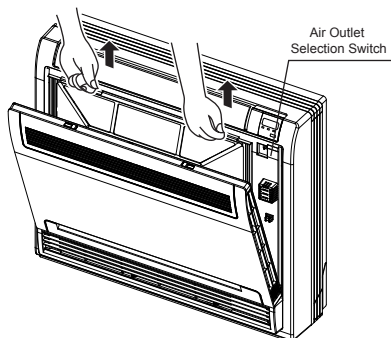


Fig. 5-7

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.)

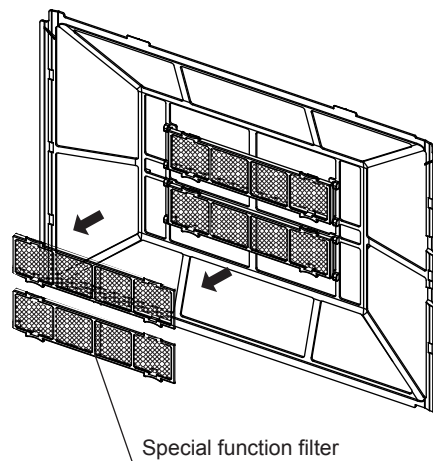


Fig. 5-8

- **For digital scroll floor standing type**

The filter is housed in the lower part of the unit in versions II and III to take in air from below or from the rear. To remove the filter in versions II and III, do as follows.

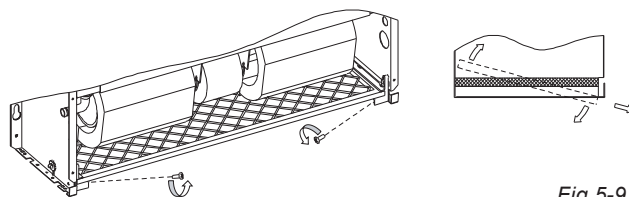


Fig. 5-9

It is housed in the front cowl in version I to take in air from the front.

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

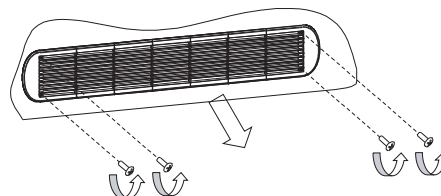


Fig. 5-10

- **Two-way cassette type**

- **Take off the inhalation grating from the panel.**

- 1) Upright row (non-directional) one side of the inhalation grating, and putdown the other side, and then slide follow the arrow's direction refers to Fig.5-9
- 2) Loosen the hanger of the putdown side refers to Fig.5-10
- 3) Open the inhalation grating (about 45°), and remove the other side, refers to Fig.5-11

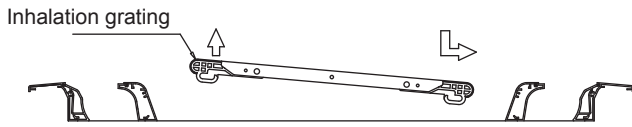


Fig.5-11

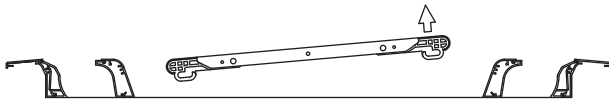


Fig.5-12

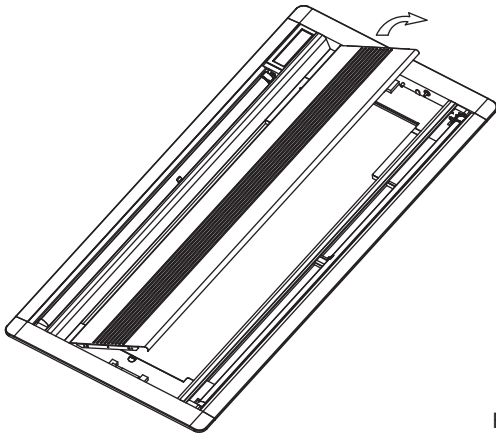


Fig.5-13

- According to the figure shown in the position and direction of the arrow, press the filter and take it down. In the same way, take down the filter on the other side, and put it back after cleaning.

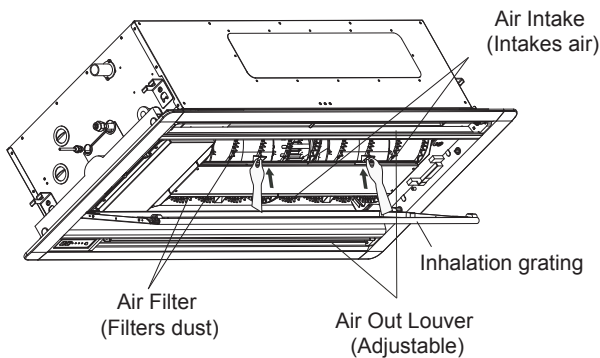


Fig.5-14

2. Dismantle the air filter.

3. Clean the air filter

The air filter blocks dust. If the filter is blocked, the air conditioner will not work as well.

Clean the filter every two weeks when you use the unit in regular use.

Clean the air filter with a vacuum cleaner or water.

- The air-in side should face up when using a vacuum cleaner. (Refer to Fig.5-13)
- The air-in side should face down when using clean water. (Refer to Fig.5-14)

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

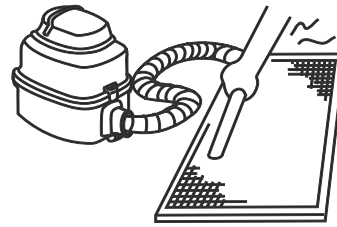


Fig.5-15

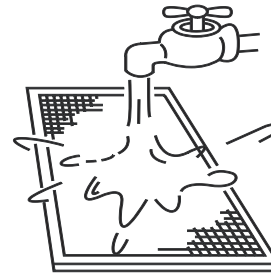


Fig.5-16



CAUTION

- Do not dry out the air filter under direct sunshine or with fire.
- For the one-way cassette type, the air filter should be installed before the unit body.

4. Re-install the air filter.

- Install and close the air-in grill by reversing step 1 and 2, and connect the control box cables to the corresponding terminators of 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 operation 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 on how to proceed, and make sure you install cleaned air filters back in the same position.

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 in operation. So please disconnect the power to save the energy.

A degree of dirt will be after several rounds of use so maintain carefully.

Take out of the batteries from the remote controller.

■ **Maintenance after a long period of non-use.**

(e.g., at the beginning of the season)

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

Clean air filters and casings of indoor units.
Refer to "Cleaning the air filter" section for details on how to proceed and make sure you reinstall the cleaned air filters in the same position.

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 controller displays appear.

■ **Digital scroll central air conditioning auxiliary heating equipment**

In winter, purchase the indoor unit with auxiliary heating to enlarge the capacity.

When turning to the heat mode the air conditioner with auxiliary heating will run at the set term.

Do not install the 4-way cassette type and duct/ceiling type (with auxiliary heating).

6. POTENTIAL PROBLEMS

Symptom 1: The system does not work

- The air conditioner does not start immediately after pressing the ON/OFF button on the remote controller.
If the operation lamp lights, the system is in normal condition. To prevent the compressor motor from overloading, the air conditioner starts three minutes after it is turned on.
- Heating mode is running when the following lights are on: operation and the "PRE-DEF 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: Running fan mode during cooling mode

- To prevent the indoor evaporator frosting, the system will change into fan mode automatically before resuming cooling mode.
- When the room temperature drops to the set temperature, the compressor goes off and the indoor unit changes to fan mode. When the temperature increases, the compressor starts again. It is same as in heating mode.

Symptom 3: White mist is expelled from the unit

Symptom 3.1: Indoor unit

- When humidity is high during the cooling operation. If the interior of the 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 dealer for details on cleaning the unit, because a technician is required.

Symptom 3.2: Indoor unit, outdoor unit

- When the system is changed over to the heating operation after defrost operation. Moisture generated by defrost becomes steam and is exhausted.

Symptom 4: The air conditioner is noisy in cooling mode

Symptom 4.1: Indoor unit

- A continuous sound is heard when the system is in cooling mode or has stopped.
The drain pump (optional accessory) makes this sound.
- A squeaking sound is heard when the system stops after heating operation.
The expansion and contraction of plastic parts caused by temperature change make this noise.

Symptom 4.2: Indoor unit, outdoor unit

- A continuous low hissing sound is heard when the system is in operation.
This is the sound of refrigerant gas flowing through both indoor and outdoor units.
- A hissing sound which is heard at the start or immediately after stopping or defrosting.
This is the noise of refrigerant caused by a flow stop or flow change.

Symptom 4.3: Outdoor unit

- The running noise may change due to a change in frequency.

Symptom 5: Dust comes out of the unit

- When the unit is used for the first time in a long time.
This is because dust has gotten into the unit.

Symptom 6: The unit gives off a strange odor

- The unit can absorb the smell of rooms, furniture, and cigarette smoke, and then emit it.

Symptom 7: The outdoor unit fan does not spin.

- During operation. The speed of the fan is controlled to optimize how the product runs.

7. TROUBLESHOOTING

7.1 Troubles and causes of air conditioner

If one of the following faults occur, power the unit off and contact your dealer.

- The remote controller receives malfunction or the button does not work well.
- A safety device such as a circuit breaker frequently trips.
- Obstacles and water enter the unit.
- Water is leaking from the indoor unit.
- Other malfunctions.

If the system does not run properly due to a reason other than those mentioned above, check the system as follows. (See in Table 7-1)

Table 7-1

Symptoms	Causes	Solution
Unit does not start	<ul style="list-style-type: none"> • Power failure. • Power switch is off. • The power switch fuse may have burned out • The remote controller's batteries are dead. 	<ul style="list-style-type: none"> • Wait for the power to resume. • Switch on the power. • Replace the fuse. • Replace the batteries or check the controller.
Air flows normally but doesn't cool	<ul style="list-style-type: none"> • Temperature is not set correctly. • The three-minute compressor for protection is activated 	<ul style="list-style-type: none"> • Set the temperature properly. • Wait.
Unit starts or stops frequently	<ul style="list-style-type: none"> • There is too much or too little refrigerant. • There is no gas in the refrigerating circuit. • Compressor is malfunction. • Voltage is too high or too low. • System circuit is blocked. 	<ul style="list-style-type: none"> • Check leakage, and rightly recharge the refrigerant. • Vacuum and recharge the refrigerant. • Maintenance or the change compressor. • Install manostat. • Find reasons and the solution.
Low cooling effect	<ul style="list-style-type: none"> • The outdoor unit and indoor unit of the heat exchanger are dirty. • The air filter is dirty. • Inlet/outlet of the indoor/outdoor unit is blocked. • Doors and windows are open. • Sunlight is directly shining on the unit. • Too much heat resource. • Outdoor temp. is too high. • Leakage of refrigerant or lack of refrigerant. 	<ul style="list-style-type: none"> • Clean the heat exchanger. • Clean the air filter. • Eliminate all dirt and to make the air flow smoothly. • Close doors and windows. • Install curtains to provide shelter from the sun. • Reduce heat sources. • AC cooling capacity reduces (normal). • Check leakage and add refrigerant.
Low heating effect	<ul style="list-style-type: none"> • Outdoor temperature is lower than 7°C. • Doors and windows are not completely closed. • Refrigerant is leaking or there's not enough. 	<ul style="list-style-type: none"> • Use a heating device. • Close doors and windows. • Check leakage and add refrigerant.

7.2 Troubles and causes of remote controller

Before asking for service or repairs, check the following points. (See in Table 7-2)

Table 7-2

Symptoms	Causes	Solution
The fan speed cannot be adjusted.	<ul style="list-style-type: none"> Check whether the MODE indicated on the display is "AUTO" 	In automatic mode, the air conditioner will automatically change the fan speed.
	<ul style="list-style-type: none"> Check whether the MODE indicated on the display is "DRY" 	When dry operation 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.	<ul style="list-style-type: none"> Check whether the batteries in the remote controller are exhausted. 	The power supply is off.
The TEMP. indicator does not come on.	<ul style="list-style-type: none"> Check whether the MODE indicated on the display is FAN ONLY 	The temperature cannot be set during FAN mode.
The indication on the display disappears after a certain time.	<ul style="list-style-type: none"> Check whether the timer operation has come to an end when the 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.	<ul style="list-style-type: none"> Check whether the timer operation is started when the 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 tone sounds from the indoor unit when the ON/OFF button is pressed.	<ul style="list-style-type: none"> 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.

7.3 Fault information and codes

Fault information is only available for indoor units with a panel, and only the panel with digit displays shows the fault code, otherwise just four LED lamps. The LED and digit display the following faults.

Table.7-3

The fault indication of LED

NO.	Type	Contents	LED flash	Remarks
1	Malfunction	The evaporator sensor check point is abnormal or room temp. sensor is abnormal.	The run LED flashes fast	After the fault ends, the unit resumes automatically.
2	Malfunction	Indoor/outdoor unit communication is abnormal	The timer LED flashes fast	After the fault ends, the unit resumes automatically.
3	Malfunction	Outdoor unit is abnormal	The alarm LED flashes slowly	After the fault ends, the unit resumes automatically.
4	Malfunction	The water level switch is abnormal	The alarm LED flashes fast	After the fault ends, the unit resumes automatically.
5	Alarm	Mode conflict	The defrost LED flashes fast	When the indoor unit enters heating mode or is turned off, the alarm will turn off.
6	Alarm	M_Home mismatching	4 LED flash together	When the indoor unit is replaced with the correct one or is turned off, the alarm will disappear.
7	Malfunction	EEPROM error	Defrost LED flash slowly	After the fault ends, the unit resumes automatically.
8	Alarm	No address when powered on the first time	Timer LED and run LED flash together	After the fault ends, the unit resumes automatically.

Table.7-4

The fault Indication Of Digit Displays

NO.	Type	Contents	Display content	Remarks
1	Malfunction	Room temp. sensor is abnormal.	E2	After the malfunctions disappear, it restores automatically.
2	Malfunction	Indoor/outdoor unit communication is abnormal	E1	After the malfunctions disappear, it restores automatically.
3	Malfunction	Outdoor unit is abnormal	Ed	After the malfunctions disappear, it restores automatically.
4	Malfunction	Water level switch is abnormal	EE	After the malfunctions disappear, it restores automatically.
5	Alarm	Mode conflict	E0	When the indoor unit turns to heating mode or is turned off, the alarm will disappear.
6	Alarm	M_Home mismatch	H0	When the indoor unit is replaced with a correct one or is turned off, the alarm will turn off
7	Malfunction	EEPROM error	E7	After the malfunctions disappear, it restores automatically.
8	Alarm	No address when powered on for the first time	FE	After the malfunctions disappear, it restores automatically.
9	Malfunction	The evaporator temp. sensor is abnormal.	E3	After the malfunctions disappear, it restores automatically.
10	Malfunction	The evaporator outlet temp. sensor is abnormal.	E4	After the malfunctions disappear, it restores automatically.

NOTE CONCERNING PROTECTION OF ENVIRONMENT



This product must not be disposed of via normal household waste after its service life, but must be taken to a collection station for the recycling of electrical and electronic devices. The symbol on the product, the operating instructions or the packaging indicate such disposal procedures. The materials are recyclable in accordance with their respective symbols. By means of re-use, material recycling or any other form of recycling old appliances you are making an important contribution to the protection of our environment. Please ask your local council where your nearest disposal station is located.

INFORMATION CONCERNING USED REFRIGERANT MEDIUM

This unit is containing fluorinated gases included in the Kyoto protocol. The maintenance and the liquidation must be carried out by qualified personnel.

Type of refrigerant: R410A

The composition of the cooling medium R410A: (50% HFC-32, 50% HFC-125)

The quantity of the refrigerant: please see the unit label.

The value GWP: 2088 (1 kg R410A = 2,088 t CO₂ eq)

GWP = Global Warming Potential

In case of quality problem or other please contact your local supplier or authorized service center.

Emergency number: 112

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