



COMFORT... **BUILT TO LAST**

MULTI-ZONE  
**OUTDOOR UNIT**  
*AB SERIES, HEAT PUMP*

**USER MANUAL**

FOR MODELS:

2PAMSH18-MZ02

2PAMSH27-MZ03

2PAMSH36-MZ04

2PAMSH48-MZ05



Before using your air conditioner, please read this manual carefully and keep it for future reference, along with your receipt.







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## User Manual

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## CAUTION

- Contact an authorized service technician or certified HVAC contractor for installation of this unit.
- Contact an authorized service technician or certified HVAC contractor for repair or maintenance of this unit.
- This appliance is not intended for use 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 concerning use of the appliance by persons responsible for their safety.
- Young children should be supervised to ensure that they do not play with the air conditioner.
- Installation work must be performed in accordance with national or local wiring standards by authorized personnel only.





# Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring or not following installation and usage instructions may cause harm or damage. The seriousness is classified by the following indications:

 <b>WARNING</b>	This symbol indicates the possibility of death or serious injury.
 <b>CAUTION</b>	This symbol indicates the possibility of injury or damage to property.

■ Meanings of symbols used in this manual are as shown below.

	<b>Strictly prohibited.</b>
	<b>Be sure to follow these instructions.</b>

## **WARNING**



- NEVER splice any electrical connection. A poor electrical connection, poor insulation or voltage which is higher than permitted can cause fire.
- Do not expose your body directly to the cool air for prolonged periods of time.
- Never poke fingers, sticks or other objects in the air inlet and outlet vents.
- Never attempt to repair, relocate, or modify the air conditioner yourself. Always contact your qualified service provider if required.
- Do not operate your air conditioner in a wet environment such as a bathroom or laundry room.



- Contact an authorized service technician or certified HVAC contractor for installation of this unit.
- Contact an authorized service technician or certified HVAC contractor for repair or maintenance of this unit.
- In the event of any abnormality such as a burning smell, completely power off the device. Contact your qualified service provider.
- Completely power off the system before attempting to clean it.
- Use specified wiring.
- This air conditioner is not intended for use 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 concerning use of the air conditioner by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the air conditioner.



# Safety Precautions

## CAUTION



- Never operate any controls with wet hands. Doing so may cause an electric shock.
- Never use the device for any other purpose than the intended use.
- Never place food, precision instruments, plants, animals, paint, etc. on the unit.
- Do not expose plants or animals directly to the air flow of the unit.
- Never clean the air conditioner with water.
- Never use combustible cleaning agents as these could cause a fire or deformation.
- Never place any burning objects close to the device if they could be directly affected by the emitted air.
- Never step onto the outdoor unit and never place anything on it.
- Never use an unsteady or rusty base to support outdoor unit.
- Never install the air conditioner in places where combustible gas can be emitted. Emitted gas may collect and cause an explosion.
- Never allow the air conditioner to run for too long with the doors or windows open, or if the humidity is very high.



- If the air conditioner is to be used in conjunction with other heaters, the air should be refreshed periodically; otherwise there is a risk of lack of oxygen.
- Always completely power off the unit if it is not going to be used for an extended period of time. Collecting dust can cause fire.
- Always completely power off the air conditioner during a storm. Otherwise, electrical parts may get damaged.
- Check that the drainage line is correctly connected. If not, water will escape.
- Check that the condensate water can run off unhindered. It may cause water damage if the condensate water cannot drain away properly.
- The air conditioner must be electrically grounded in accordance with the local codes.
- For electrical safety & maintenance purposes we recommend that you install a separate circuit-breaker/disconnect switch and surge protection.

### **NOTE:**

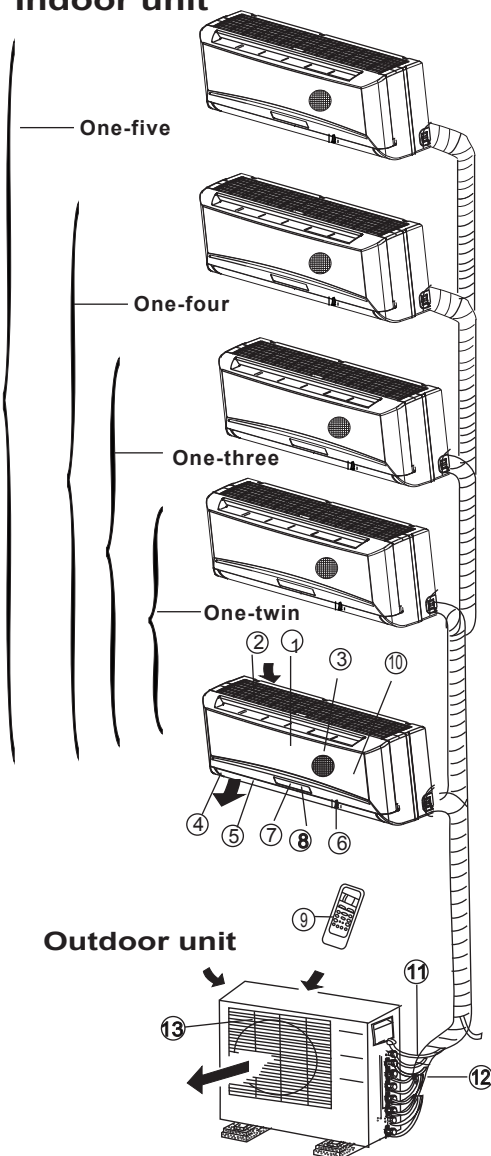
A guide to using the remote control is included in this literature package.



# Identification of Parts

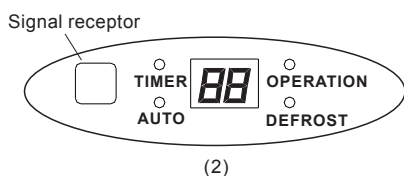
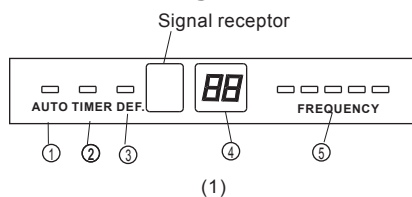
# 1

## Indoor unit



## Outdoor unit

## LED Display panel



## IMPORTANT:

- For multi-split type air conditioners, one outdoor unit can match different types of indoor units. All of the pictures in this manual are for explanation purposes only. Your air conditioner may be slightly different. The actual shape shall prevail.
- The following pages introduce several kinds of indoor units matching with the outdoor units.

## Indoor unit

1. Front panel
2. Top air intake
3. Air filter (Inside)
4. Air outlet
5. Horizontal air flow louver
6. Vertical air flow louver (Internal)
7. Display panel
8. LED display window
9. Remote control
10. Manual control button (Behind the front panel)

## Outdoor unit

11. Refrigerant connecting pipe, drain hose and electric wiring
12. Stop valve
13. Air outlet

## Display panel

### AUTO indication lamp

Lights up during the Auto operation.

### TIMER indication lamp

Lights up during Timer operation.

### DEFROST indication lamp

(For Cooling & Heating models only):  
Lights up when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.

### DIGITAL DISPLAY indication lamp

Displays the current setting temperature. When the air conditioner is in FAN operation, it displays the actual room temperature. It also will display multifunction and protection codes.

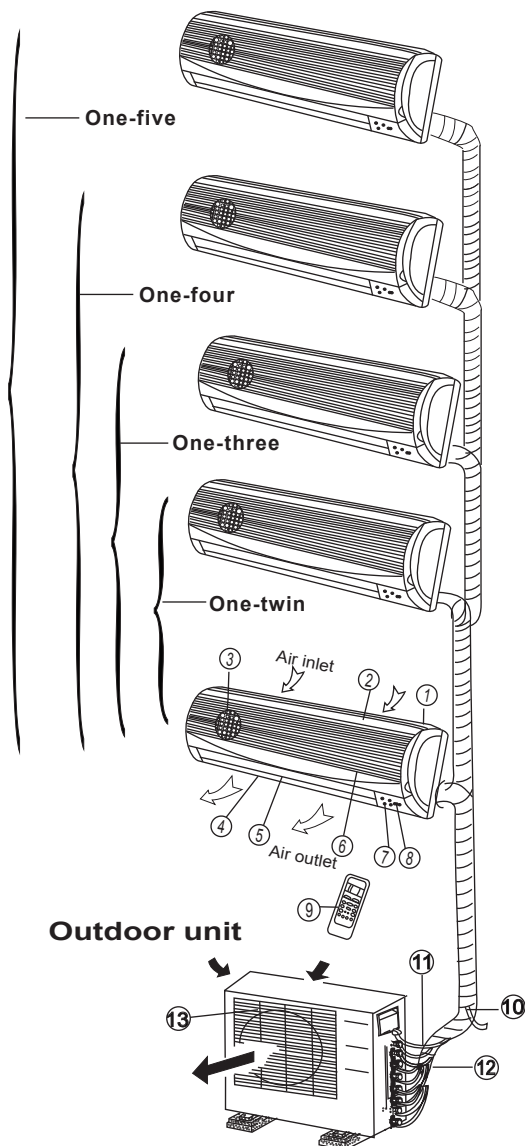
### OPERATION indication lamp

This indicator appears only when the compressor is in operation and indicates the current operating frequency.



## Identification of Parts (continued)

### Indoor unit



### Indoor unit

- ① Front panel frame
- ② Front panel
- ③ Air filter
- ④ Horizontal air flow grille
- ⑤ Vertical air flow louver
- ⑥ Room temperature sensor
- ⑦ Display panel
- ⑧ Infrared signal receiver
- ⑨ Remote control

### Outdoor unit

- ⑩ Drain hose, refrigerant connecting pipe
- ⑪ Connective cable
- ⑫ Stop valve
- ⑬ Fan hood

## DISPLAY PANEL

### OPERATION indicator:

The indicator flashes once every second after power is on and illuminates when the air conditioner is in operation.

### TIMER indicator:

The indicator illuminates when TIMER is set ON.

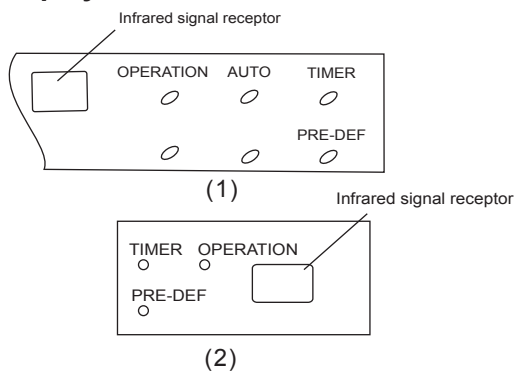
### PRE-DEF. Indicator (For cooling & heating model only):

This indicator illuminates when the air conditioner starts defrosting automatically or when the Anti-cold air function is activated in heating operation.

### AUTO indicator:

This indicator flashes when the air conditioner is in AUTO operation.

### Display Panel

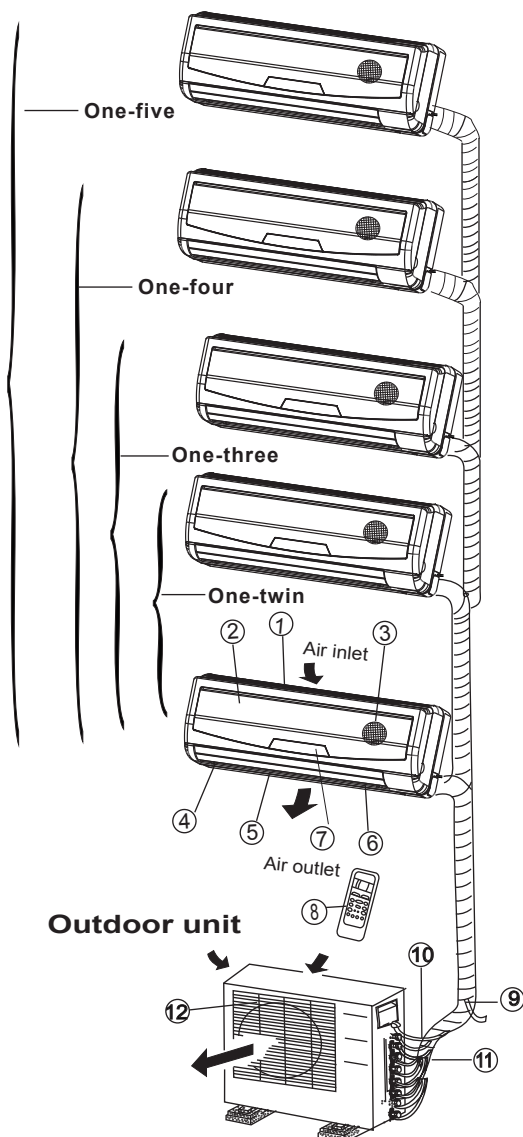




## Identification of Parts *(continued)*

### Identification of parts

#### Indoor unit



#### Outdoor unit

#### Indoor unit

- ① Front panel frame
- ② Front panel
- ③ Air filter
- ④ Horizontal air flow grille
- ⑤ Vertical air flow louver
- ⑥ Room temperature sensor
- ⑦ Display panel
- ⑧ Remote control

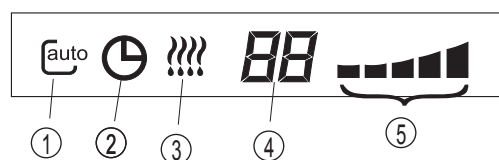
#### Outdoor unit

- ⑨ Drain hose, refrigerant connecting pipe
- ⑩ Connective cable
- ⑪ Stop valve
- ⑫ Fan hood

### LED DISPLAY WINDOW

- ① **AUTO indication lamp**  
Lights up during the Auto operation.
- ② **TIMER indication lamp**  
Lights up during Timer operation.
- ③ **DEFROST indication lamp**  
(For Cooling & Heating models only):  
Lights up when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.
- ④ **DIGITAL DISPLAY indication lamp**  
Displays the current setting temperature. Only when the air conditioner is in FAN operation, it displays the actual room temperature. And displays the malfunction code or protection code.
- ⑤ **OPERATION indication lamp**  
This indicator appears only when the compressor is in operation and indicates the current operating frequency.

#### LED Display window



(1)

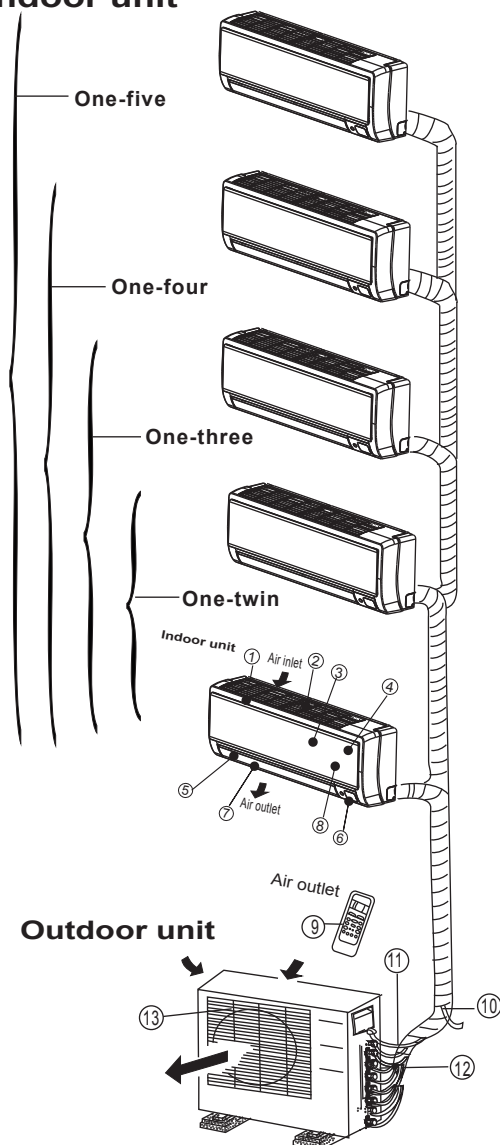


(2)



## Identification of Parts (continued)

### Indoor unit



### Indoor unit

1. Panel frame
2. Rear air intake grille
3. Front panel
4. Air filter (behind)
5. Horizontal louver
6. LCD display window
7. Vertical louver
8. Manual control button (behind)
9. Remote control holder

### Outdoor unit

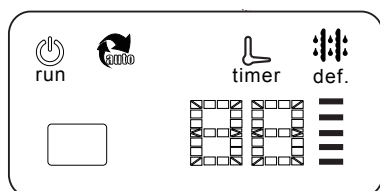
10. Drain hose, refrigerant connecting pipe
11. Connective cable
12. Stop valve
13. Fan hood



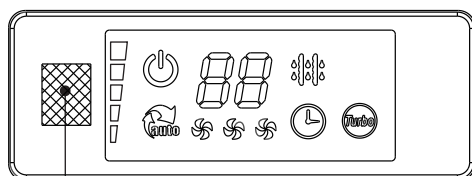
## Identification of Parts *(continued)*

### Display window

**NOTE:** The display window on the air conditioner you purchased may look like one of the following:



(1)

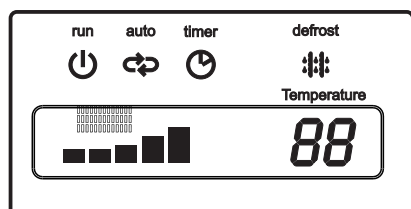


Signal receptor

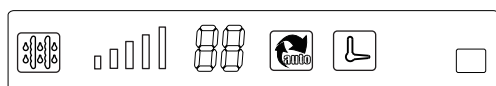
(2)



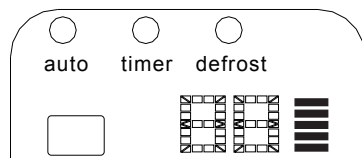
(3)



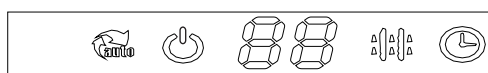
(4)



(5)



(6)



(7)



#### **OPERATION display**

Displayed when the air conditioner is in operation.



#### **AUTO operation display**

Displayed during Auto operation.



#### **DEFROST operation display**

*(For Heating & Cooling model only):*

Displayed when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.



#### **TIMER display**

Displayed during Timer operation.



#### **TURBO operation display**

Displayed when select TURBO function on cooling operation or on heating operation.



#### **DIGITAL DISPLAY**

Displays the current setting temperature when the air conditioner is in operation.



#### **FAN SPEED display**

Displayed the selected fan speed: LOW( ), MED( ) and HIGH( ).



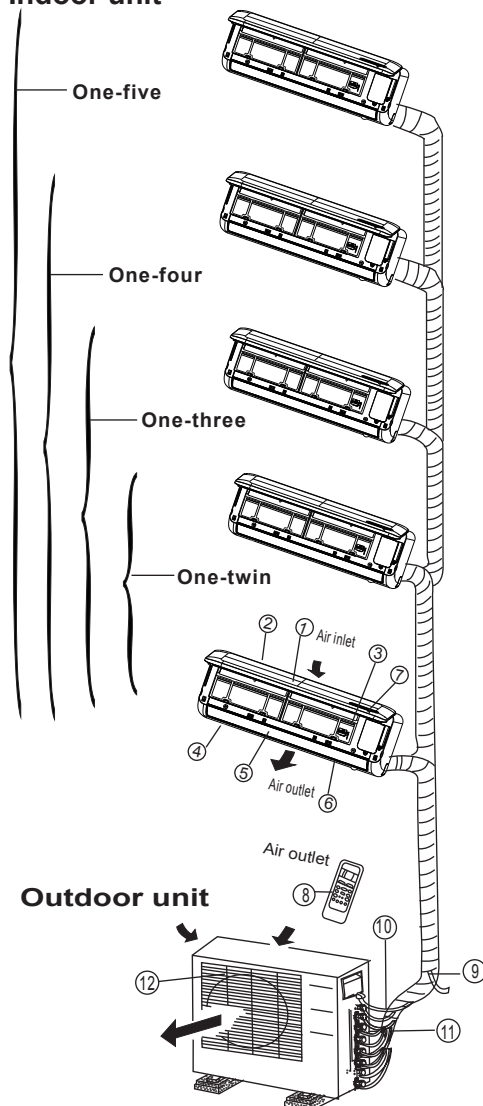
#### **Frequency indication lamp**

This display is separated into five zones. The zones illuminate based on the compressor current frequency. For example, higher frequency will illuminate more zones.



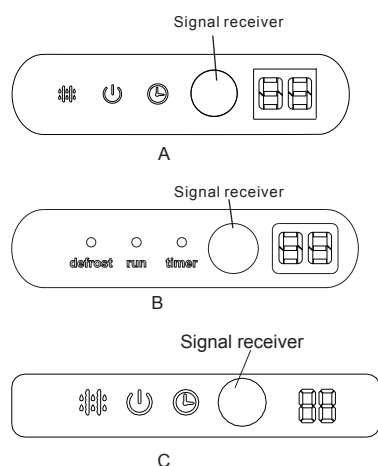
## Identification of Parts (continued)

### Indoor unit



### Outdoor unit

### LED Display window



### Indoor unit

1. Front panel
2. Air inlet
3. Air filter
4. Air outlet
5. Horizontal air flow grille
6. Vertical air flow louver (inside)
7. Display panel
8. Remote control

**NOTE:** The actual shape of the indoor unit you purchased may be slightly different on front panel and display window.

### Outdoor unit

9. Drain hose, refrigerant connecting pipe
10. Connective cable
11. Stop valve
12. Fan hood

### NOTE:

All the pictures in this manual are for explanation purposes only. Your air conditioner may be slightly different. The actual shape shall prevail.

### Indication lamp on LED Display window



#### DEFROST indication lamp

(Enabled on cooling & heating models only):  
Lights up when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.



#### OPERATION indication lamp

This lamp illuminates when the air conditioner is in operation.



#### TIMER indication lamp

Lights up during Timer operation.



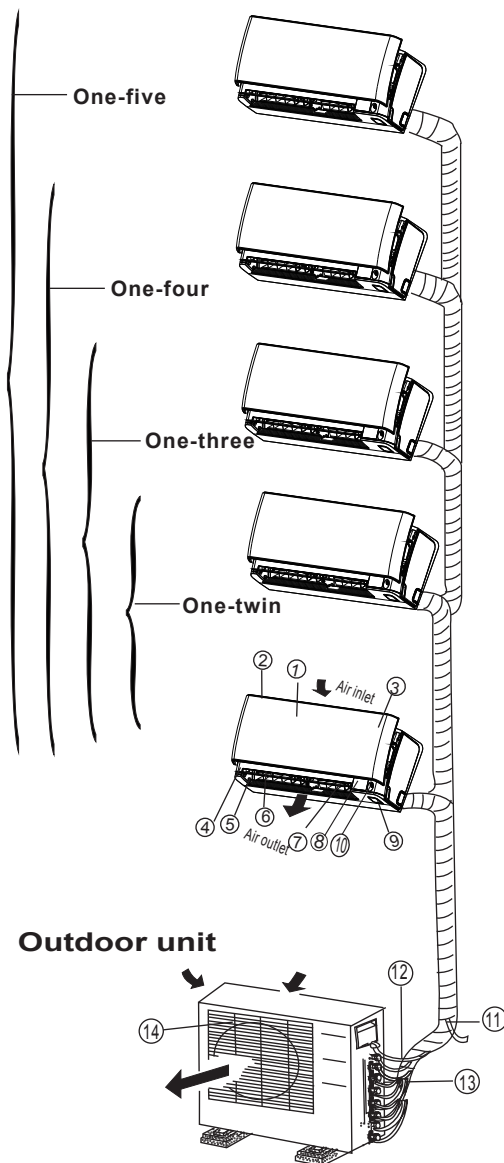
#### Temperature indicator

- Displays the temperature settings when the air conditioner is operational.
- Displays the malfunction code.



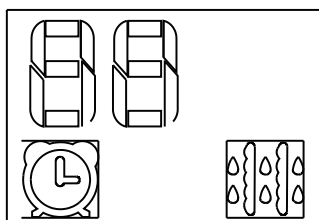
## Identification of Parts (continued)

### Indoor unit



### Outdoor unit

### LED Display window



### Indoor unit

1. Front panel
2. Air inlet
3. Air filter(inside)
4. Air outlet
5. Horizontal air flow grille(outside)
6. Horizontal air flow grille(inside)
7. Vertical air flow louver
8. Display panel
9. Manual control button and receiver
- ~~10. Intelligent eye detector(on some models)~~

### Outdoor unit

11. Drain hose, refrigerant connecting pipe
12. Connective cable
13. Stop valve
14. Fan hood

### NOTE:

All the pictures in this manual are for explanation purposes only. Your air conditioner may be slightly different. The actual shape shall prevail.

### Indication lamp on LED Display window



#### TEMPERATURE indication lamp

Displays the temperature settings when the air conditioner is operational.  
Displays the malfunction code.  
Displays the actual room temperature on Fan only mode.



#### TIMER indication lamp

Lights up during Timer operation.



#### ION indication lamp(optional)

Lights up when Clean Air feature is activated.

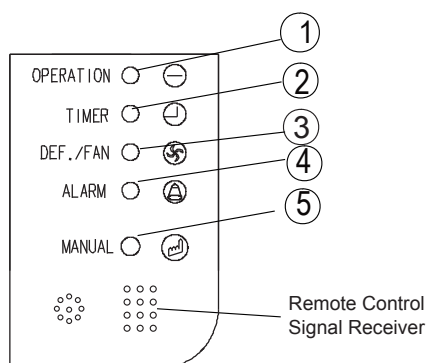


#### DEFROST indication lamp

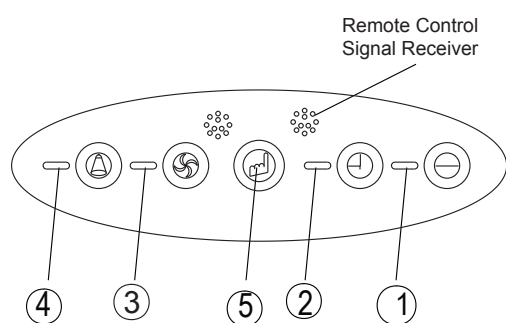
(Enabled on cooling & heating models only):  
Lights up when the air conditioner starts defrosting automatically or when the warm air control feature is activated in heating operation.



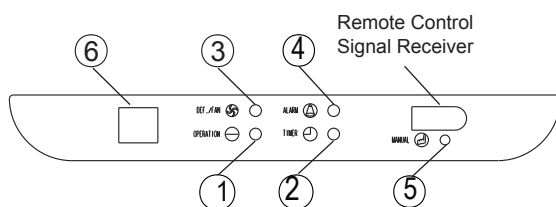
## Identification of Parts (continued)



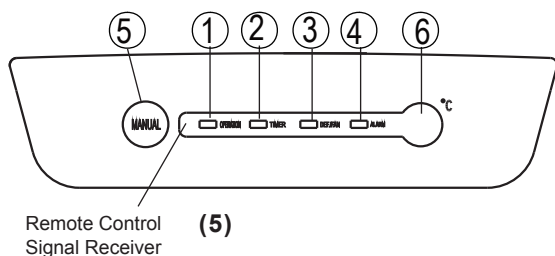
(2)



(3)



(4)



Remote Control  
Signal Receiver

(5)

### ⑤ Temporary button

This button is used to operate the unit temporarily in case you misplace the remote control or its batteries are exhausted. One press of the manual control button will lead to the forced AUTO operation. If press the button twice within five seconds, the unit will operate under forced COOL operation. The forced COOL operation is used for testing purposes only, please do not choose it unless it is necessary.

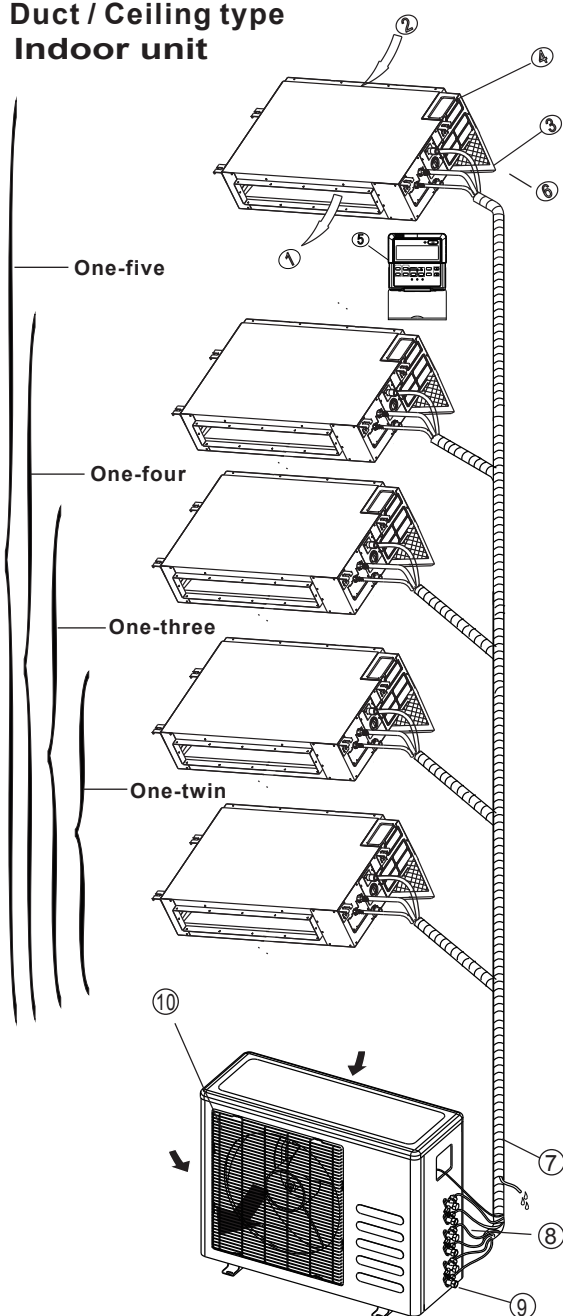
### ⑥ Temperature Display

Displays the current setting temperature while the unit is operating.

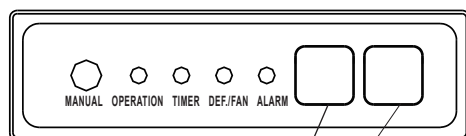


## Identification of Parts (continued)

### Duct / Ceiling type Indoor unit



### Display panel



### Indoor unit

1. Air outlet
2. Air inlet
3. Air filter
4. Electric control cabinet
5. Wired controller
6. Drain pipe

### Outdoor unit

7. Drain hose, refrigerant connecting pipe
8. Connective cable
9. Stop valve
10. Fan hood

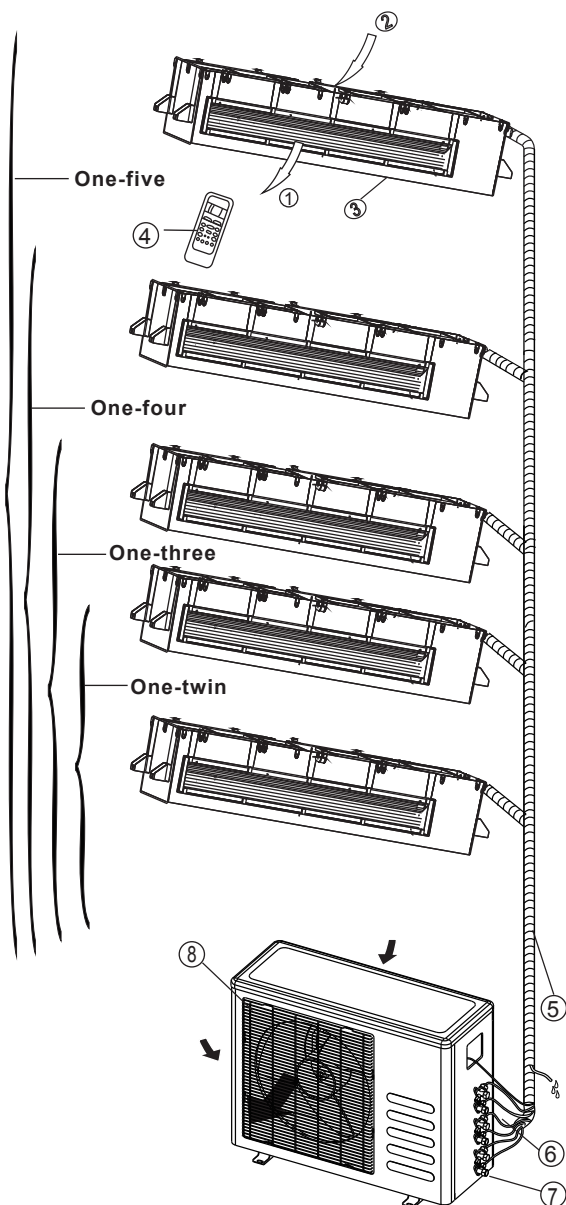
## DISPLAY PANEL

- ① **OPERATION indication lamp**  
This indicator illuminates when the unit is operational.
- ② **TIMER indication lamp**  
Lights up during Timer operation.
- ③ **DEF./FAN indication lamp**  
Lights up when the air conditioner starts defrosting automatically in heating operation (applicable to cooling & heating models only) or fan only mode is selected (applicable to cooling only models).
- ④ **ALARM indication lamp**  
Flashes when malfunction occurs.
- ⑤ **MANUAL button**  
This button is used to operate the unit temporarily in case you misplace the remote controller or its batteries are exhausted. One press of the manual control button will lead to the forced AUTO operation. If press the button twice within five seconds, the unit will operate under forced COOL operation. The forced COOL operation is used for testing purposes only, please do not choose it unless it is necessary.

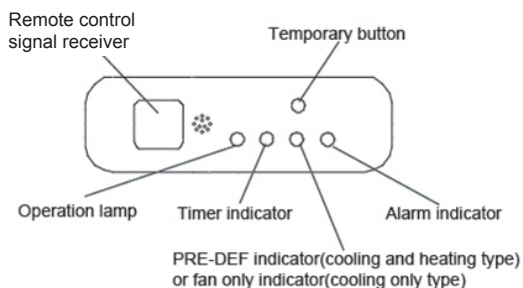


## Identification of Parts (continued)

### Duct type Indoor unit



### Display panel



### Indoor unit

1. Air outlet
2. Air inlet
3. Air filter
4. Remote control

### Outdoor unit

5. Drain hose, refrigerant connecting pipe
6. Connective cable
7. Stop valve
8. Fan hood

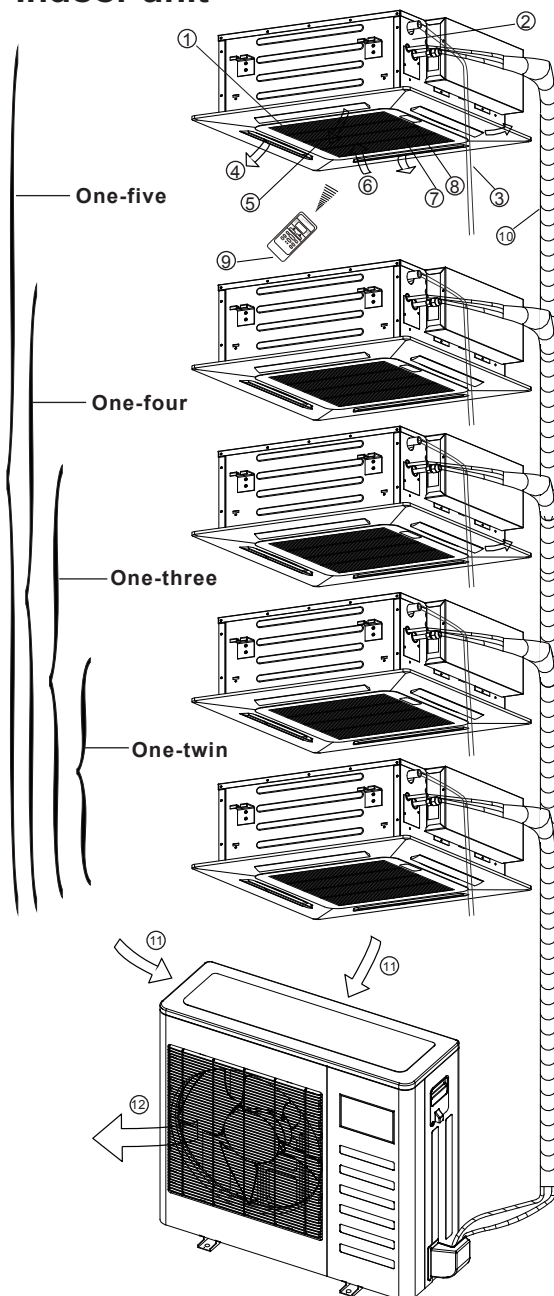
### DISPLAY PANEL

- ① **OPERATION lamp**  
This indicator illuminates when the unit is operational.
- ② **TIMER indication lamp**  
Lights up during Timer operation.
- ③ **PRE-DEF./FAN indication lamp**  
Lights up when the air conditioner starts defrosting automatically in heating operation (applicable to cooling & heating models only) or fan only mode is selected (applicable to cooling only models).
- ④ **ALARM indication lamp**  
Flashes when malfunction occurs.
- ⑤ **TEMPORARY button**  
This button is used to operate the unit temporarily in case you misplace the remote control or its batteries are exhausted. One press of the manual control button will lead to the forced AUTO operation. If press the button twice within five seconds, the unit will operate under forced COOL operation. The forced COOL operation is used for testing purposes only. Please do not choose it unless it is necessary.

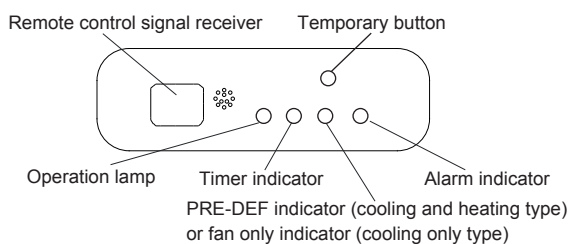


## Identification of Parts (continued)

### Compact four-way cassette type Indoor unit



### Display panel



### Indoor unit

1. Air flow louver (at air outlet)
2. Drain pump (drain water from indoor unit)
3. Drain pipe
4. Air outlet
5. Air filter (inside air-in grille)
6. Air inlet
7. Air-in grill
8. Display panel
9. Remote control
10. Refrigerant pipe

### Outdoor unit

11. Air inlet
12. Air outlet

## DISPLAY PANEL

- ① **OPERATION lamp**  
This indicator illuminates when the unit is operational.
- ② **TIMER indication lamp**  
Lights up during Timer operation.
- ③ **PRE-DEF./FAN indication lamp**  
Lights up when the air conditioner starts defrosting automatically in heating operation (applicable to cooling & heating models only) or fan only mode is selected (applicable to cooling only models).
- ④ **ALARM indication lamp**  
Flashes when malfunction occurs.
- ⑤ **TEMPORARY button**  
This button is used to operate the unit temporarily in case you misplace the remote controller or its batteries are exhausted. One press of the manual control button will lead to the forced AUTO operation. If press the button twice within five seconds, the unit will operate under forced COOL operation. The forced COOL operation is used for testing purposes only, please do not choose it unless it is necessary.



# Operating Instructions

# 2

**NOTE:** This manual does not include Remote Control Operation Instructions. See Remote Control User Manual included with the unit for those instructions.

## Operating Temperature

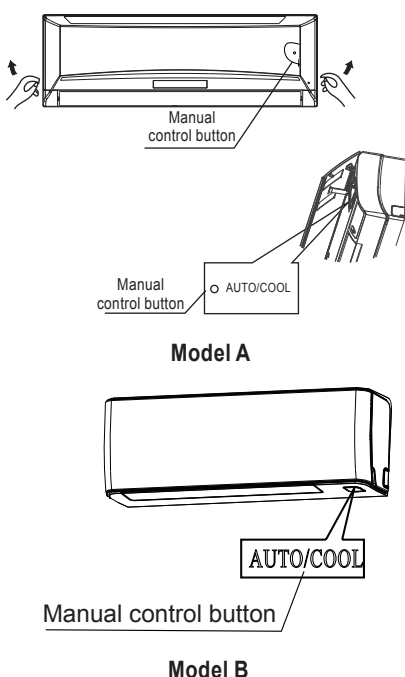
Mode Temperature	Cooling Operation	Heating Operation	Drying Operation
Room Temperature	62°F~90°F (17°C~32°C)	32°F~86°F (32°C~86°C)	62°F~90°F (17°C~32°C)
Outdoor temperature	32°F~122°F (0°C~50°C) <small>5°F~122°F/-15°C~50°C for models with low temperature cooling system</small>	5°F~76°F (-15°C~24°C)	32°F~122°F (0°C~50°C)

### NOTE:

1. Optimum performance will be achieved within these operating temperatures. If air conditioner is used outside of the above conditions, certain safety protection features might come into operation and cause the unit to function abnormally.
2. If the air conditioner runs for a long time in cooling mode and the humidity is high (over 80%), condensed water may drip out of the unit. Please set the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.

## Manual operation

Manual operation can be used temporarily in case you can not find the remote control or test running purposes or maintenance is necessary.



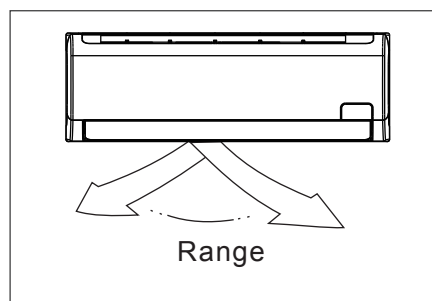
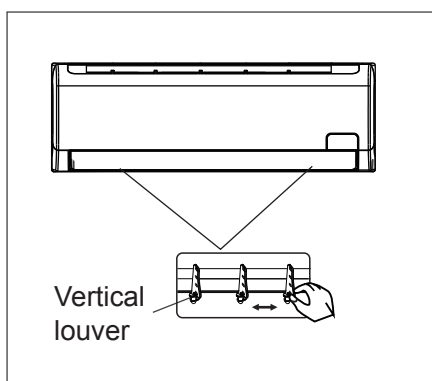
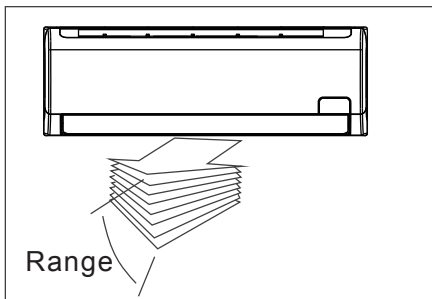
**NOTE:** The unit must be turned off before operating the manual control button. If the unit is operational, continue pressing the manual control button until the unit is off.

- ① Open and lift the front panel up will see the manual control button (see Model A)  
For some models, the manual control button is located at the bottom of the unit (see Model B).
- ② One press of the manual control button will lead to the forced AUTO operation. If you press the button twice within five seconds, the unit will operate under forced COOL operation.
- ③ Close the panel firmly to its original position.

**NOTE:** For DUCT and CEILING type, CASSETTE type, CEILING and FLOOR type and FLOOR and STANDING type, please refer to the previous pages to operate the Manual button.



### Airflow direction control



- Adjust the air flow direction properly otherwise it might cause discomfort or cause uneven room temperatures.
- Adjust the horizontal/vertical louver using the remote control. For some models, the vertical louver can only be adjusted manually.

#### To set the horizontal/vertical air flow direction

- Perform this function while the unit is in operation.
- Use the remote control to adjust the air flow direction. The vertical/horizontal louver changes 6 degree in angle for each press, or swing up and down automatically. Please refer to the "REMOTE CONTROL USER MANUAL" for details.
- For some models, the vertical louver can only be adjusted manually. Move the deflector rod manually to adjust the air flow in the direction you prefer.

**IMPORTANT:** Do not put your fingers into the panel of blower and suction side. The high-speed fan inside may cause danger.

#### CAUTION

- Do not operate the air conditioner for long periods with the air flow direction set downward in cooling or dehumidifying mode. Otherwise, condensation may occur on the surface of the horizontal louver causing moisture to drop on to the floor or on furnishings.
- Do not move the horizontal louver manually unless it is necessary. Always use the remote control.
- When the air conditioner is started immediately after it was stopped, the horizontal louver might not move for approximately 10 seconds.
- Open angle of the horizontal louver should not be set too small, as COOLING or HEATING performance may be impaired due to too restricted air flow area.
- Do not operate unit with horizontal louver in closed position.
- When the air conditioner is connected to power (initial power), the horizontal louver may generate a sound for 10 seconds, this is a normal operation.



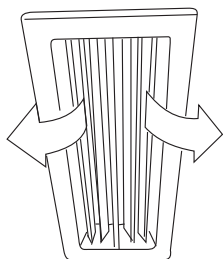
## Operating Instructions *(continued)*

### Duct-Ceiling Type

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

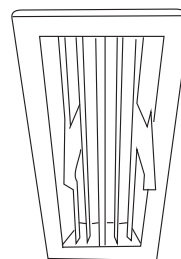
#### Cooling

To effectively cool the whole room, please adjust the louver horizontally.



#### Heating

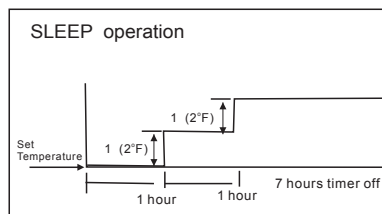
To effectively heat the bottom of the room please set the louver downwards.



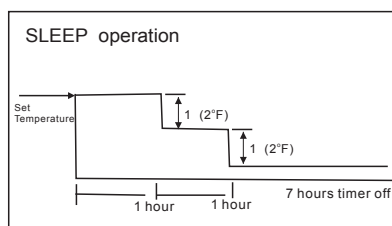


## Operating Instructions (continued)

### How the air conditioner works



#### Cooling



#### Heating

#### AUTO operation

- When you set the air conditioner in AUTO mode, it will automatically select cooling, heating (cooling/heating models only), or fan only operation depending on what temperature you have selected and the room temperature.
- The air conditioner will control room temperature automatically round the temperature point you set.
- If the AUTO mode is uncomfortable, you can select desired conditions manually.

#### SLEEP operation

- When you push SLEEP button on remote control during cooling, heating or AUTO operation, the air conditioner will automatically increase (cooling) or decrease (heating) 2°F (1°C) per hour.
- The set temperature will be steady 2 hours later. And the air conditioner will be timer off in 7 hours.
- The fan speed will be automatically controlled.
- This feature can maintain the most comfortable temperature and saves more energy.

#### DRYING operation

- The fan speed is automatically controlled under dry operation.
- During the dry operation, if the room temperature is lower than 50°F (10°C) the compressor stops operation and restarts until the room temperature is above 54°F (12°C).

### Operation Mode Selection

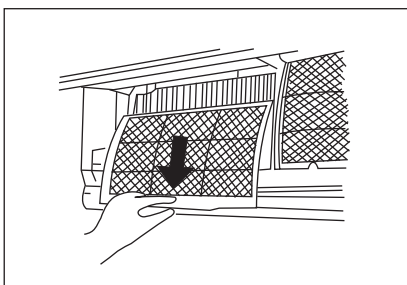
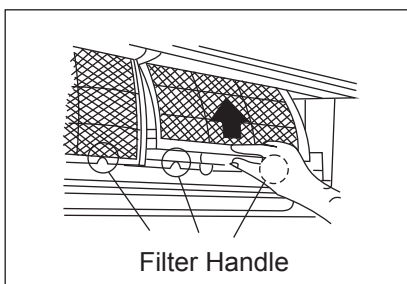
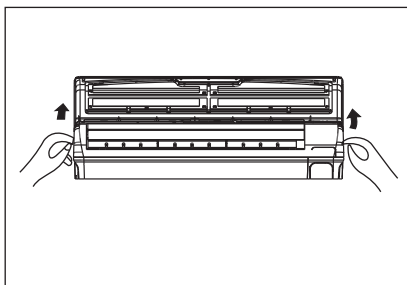
While simultaneously operating two or more indoor units, make sure the operation modes do not conflict with each other. The heat mode takes precedence over all other modes. If the unit initially started operating in heat mode, all other units can operate under heat mode only. For example: If the unit initially starts operating under cool (or fan) mode, the other units can operate under any mode except heat. If one of the units selects heat mode, the other operating units will stop operation and display PF (units with display window only) or the Auto and Operation indicator lights flash rapidly.

### Optimal operation

To achieve optimal performance, please note the following:

- Adjust the air flow direction correctly so that it is not directed at occupants.
- Adjust the temperature to achieve the highest comfort level. Do not adjust the unit to excessive temperature levels.
- Close doors and windows on COOL or HEAT modes, performance will be reduced.
- Use TIMER ON button on the remote control to select a specific time you want to start your air conditioner.
- Do not put any object near air inlet or air outlet, as the efficiency of the air conditioner will be reduced and the air conditioner may stop running.
- Clean the air filter periodically; otherwise cooling or heating performance will be reduced.
- Do not operate unit with horizontal louver in closed position.





## Cleaning the Grille, Case and Remote Control

- Turn the system off before cleaning. To clean, wipe with a soft, dry cloth. Do not use bleach or abrasives.

**NOTE:** Supply power must be disconnected before cleaning the indoor unit.

### ⚠ CAUTIONS

- A cloth dampened with cold water may be used on the indoor unit if it is very dirty. Wipe immediately with a dry cloth.
- Do not use a chemically treated cloth or duster to clean the unit.
- Do not use benzine, thinner, polishing powder, or similar solvents for cleaning. These may cause the plastic surface to crack or deform.
- Never use water hotter than 104°F (40°C) to clean the front panel, it could cause deformation or discoloration.

## ■ WALL-MOUNTED TYPE

### Cleaning the air filter

A clogged air filter reduces the cooling efficiency of this unit. Please clean the filter once every 2 weeks.

1. Lift the indoor unit panel up to an angle until it stops with a clicking sound.
2. Take hold of the handle of the air filter and lift it up slightly to take it out from the filter holder, then pull it downwards.
3. Remove the **Active Carbon & Dust Filter** from the indoor unit.
  - Clean the filters every two weeks.
  - Clean the filters with a vacuum cleaner or water, then allow them to dry in a cool place. Once the filters have dried completely, return them to the unit.



## Care & Maintenance *(continued)*

### **Maintenance**

If you plan to idle the unit for a long time, perform the following:

- (1) Operate the fan for about half a day to dry the inside of the unit.
- (2) Stop the air conditioner and disconnect power. Remove the batteries from the remote control.
- (3) The outdoor unit requires periodic maintenance and cleaning. Do not attempt to do this yourself. Contact a certified HVAC contractor.

### **Checks before operation**

- Check that the wiring is not broken off or disconnected.
- Check that the air filter is installed.
- Check if the air outlet or inlet is blocked after the air conditioner has not been used for a long time.

#### **Caution**

- Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
- Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
- When cleaning the unit, first make sure that the power and circuit breaker are turned off.



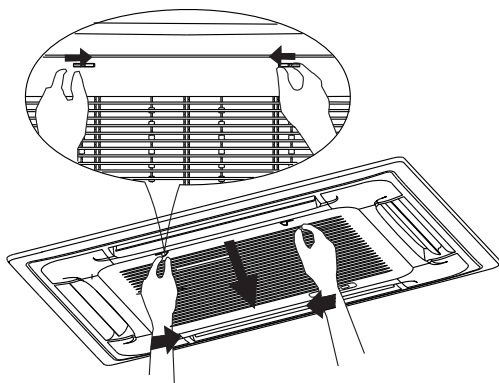


Fig. A

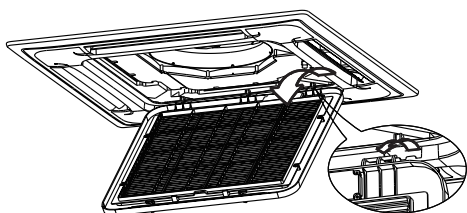


Fig. B

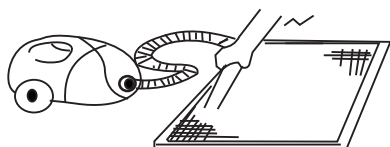


Fig. C

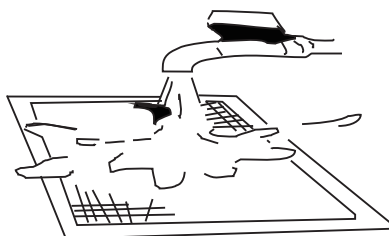


Fig. D

### ■ CASSETTE TYPE

1. Open the air intake grille by pushing the grille tabs toward the middle simultaneously as indicated in Fig. A.

**Caution:** The wiring harness, which was originally connected with the main cassette body, must be disconnected before completely removing intake grille.

2. Take out the air intake grille (together with the air filter shown in Fig. B). Pull the air intake grille down at 45° and lift it up to take out the grille.
3. Remove the air filter.
4. Clean the air filter (A vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place) .

### ■ DUCT TYPE

1. Open or remove the air-intake grille
2. Take out the air-intake grille.
3. Remove the air filter.
4. Clean the air filter (A vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place) .
  - The air-in side should face up when using vacuum cleaner. (See Fig. C)
  - The air-in side should face down when using water. (See Fig. D)
5. Re-install the air filter
6. Install and close the air-in grille intake the reverse order of steps 1 and 2 and connect the control box cables to the corresponding terminators of the main body.



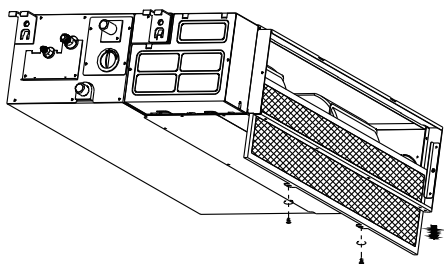


Fig.G1

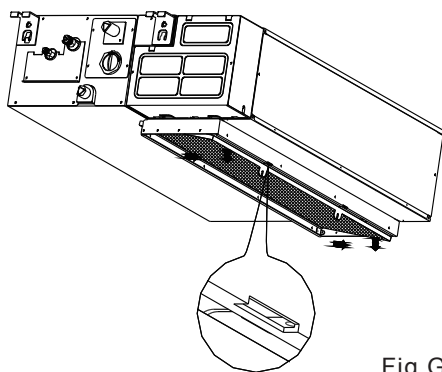


Fig.G2

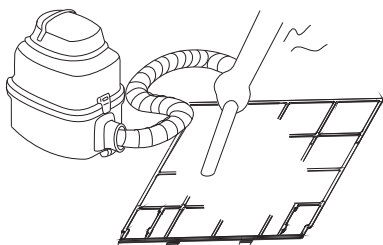


Fig.G3

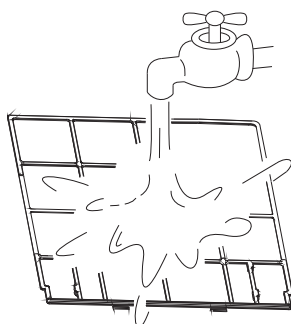


Fig.G4

### ■ DUCT TYPE

1. For rear ventilated units, please remove the screws (2 pieces) fixed on the filter and take down the filter away from the unit. See Fig. G1.
2. For downward ventilated units, please push the filter up slightly to let the position retainer escape away from the flange fixed holes, and take off the filter according to the arrow direction shows in Fig. G2.
3. Clean the air filter. A vacuum cleaner or pure water may be used to clean the air filter. If the dust accumulation is too heavy, please use soft brush and mild detergent to clean it and dry out in cool place.
4. The air-in side should face up when using vacuum cleaner. (See Fig. G3.)  
The air-in side should face down when using water. (See Fig. G4.)



## Care & Maintenance *(continued)*

### **Maintenance**

**If you plan to idle the unit for a long time, perform the following:**

1. Clean the indoor unit and air filter.
2. Select FAN only mode, let the indoor fan run for awhile to dry the inside of the unit.
3. Disconnect the power supply and remove battery from the remote control.
4. Check components of the outdoor unit periodically. Contact a certified HVAC contractor if the unit requires servicing.

**Note:** Before you clean the air conditioner, be sure to power the unit off and shut off at the disconnect or circuit breaker.

**When the air conditioner is to be used again:**

- Use a dry cloth to wipe off the dust accumulated on rear air intake grille in order to avoid the dust blowing out from the indoor unit.
- Check that the wiring is not broken off or disconnected.
- Check that the air filter is installed.
- Ensure the air outlet and inlet are not blocked after the air conditioner has not been used for a long time.

### **Operation Tips**

The following events may occur during normal operation.

#### **1. Protection of the air conditioner.**

##### **Compressor protection**

- The compressor will not restart for 3 minutes after it stops.

##### **Anti-cold air (Cooling and heating models only)**

- The unit is designed not to blow cold air on HEAT mode when the indoor heat exchanger is in one of the following three situations and the set temperature has not been reached.
  - A) When heating has just starting.
  - B) Defrosting.
  - C) Low temperature heating.

- The indoor or outdoor fan stop running when defrosting (Cooling and heating models only).

##### **Defrosting (Cooling and heating models only)**

- Frost may be generated on the outdoor unit during heat cycle when outdoor temperature is low and humidity is high resulting in lower heating efficiency of the air conditioner.
- During this condition air conditioner will stop heating operation and start defrosting automatically.
- The time to defrost may vary from 4 to 10 minutes according to the outdoor temperature and the amount of frost buildup on the outdoor unit.

#### **2. A white mist coming out from the indoor unit**

- A white mist may generate due to a large temperature difference between air inlet and air outlet on COOL mode in an indoor environment that has high relative humidity.
- A white mist may generate due to moisture generated from defrosting process when the air conditioner restarts in HEAT mode operation after defrosting.

#### **3. Low noise of the air conditioner**

- You may hear a low hissing sound when the compressor is running or has just stopped running. This sound is the sound of the refrigerant flowing or coming to a stop.
- You can also hear a low "squeak" sound when the compressor is running or has just stopped running. This is caused by heat expansion and cold contraction of the plastic parts in the unit when the temperature is changing.
- A noise may be heard due to louver restoring to its original position when power is first turned on.



**4. Dust is blown out from the indoor unit.**

This is a normal condition when the air conditioner has not been used for a long time or during first use of the unit.

**5. A peculiar smell comes out from the indoor unit.**

This is caused by the indoor unit giving off smells permeated from building material, from furniture, or smoke.

**6. The air conditioner turns to FAN only mode from COOL or HEAT (For cooling and heating models only) mode.**

When indoor temperature reaches the temperature setting on air conditioner, the compressor will stop automatically, and the air conditioner turns to FAN only mode. The compressor will start again when the indoor temperature rises on COOL mode or falls on HEAT mode (for cooling and heating models only) to the set point.

**7. Condensate water may be generated on the surface of the indoor unit when cooling in a high relative humidity condition (RH 80% or higher). Adjust the horizontal louver to the maximum air outlet position and select HIGH fan speed.**

**8. Heating mode (For cooling and heating models only)**

The air conditioner draws in heat from the outdoor unit and releases it via the indoor unit during heating operation. When the outdoor temperature falls, heat drawn in by the air conditioner decreases accordingly. At the same time, heat loading of the air conditioner increases due to larger difference between indoor and outdoor temperature. If a comfortable temperature can't be achieved by the air conditioner, we suggest you use a supplementary heating device.

**9. Auto-restart function**

Power failure during operation will stop the unit completely. For units with Auto-restart feature, when the power is restored, the unit restarts automatically with all the previous settings preserved by the memory function.

**10. Lightning or a cellular telephone operating nearby may cause the unit to malfunction.**

Disconnect the unit with power and then re-connect the unit with power again. Push the ON/OFF button on the remote control to restart operation.



## TROUBLESHOOTING TIPS

**Stop the air conditioner immediately if one of the following faults occur. Disconnect the power and contact a certified HVAC contractor.**

<b>Trouble</b>	If the E( 0,1.....) or P( 0, 1 ..... ) code appears on the LED(LCD)window, disconnect the power and contact the service people.
	Fuse blows frequently or circuit breaker trips frequently.
	Other objects or water penetrate the air conditioner.
	The remote control won't work or works abnormally.
	Other abnormal situations.

Malfunctions	Cause	What should be done?
<b>Unit does not start</b>	Power cut	Wait for power to be restored.
	Fuse may have blown.	Replace the fuse.
	Battery in Remote Control may be exhausted.	Replace the battery.
	You have set a timer function.	Wait or cancel timer setting.
<b>Unit not cooling or heating (Cooling/ heating models only) room very well while air flowing out from the air conditioner</b>	Inappropriate temperature setting.	Set temperature correctly. For detailed method please refer to "Remote Control User Manual."
	Air filter is blocked.	Clean the air filter.
	Doors or Windows are open.	Close the doors or windows.
	Air inlet or outlet of indoor or outdoor unit has been blocked.	Clear obstructions away first, then restart the unit.
	Compressor 3 minutes protection has been activated.	Wait.





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