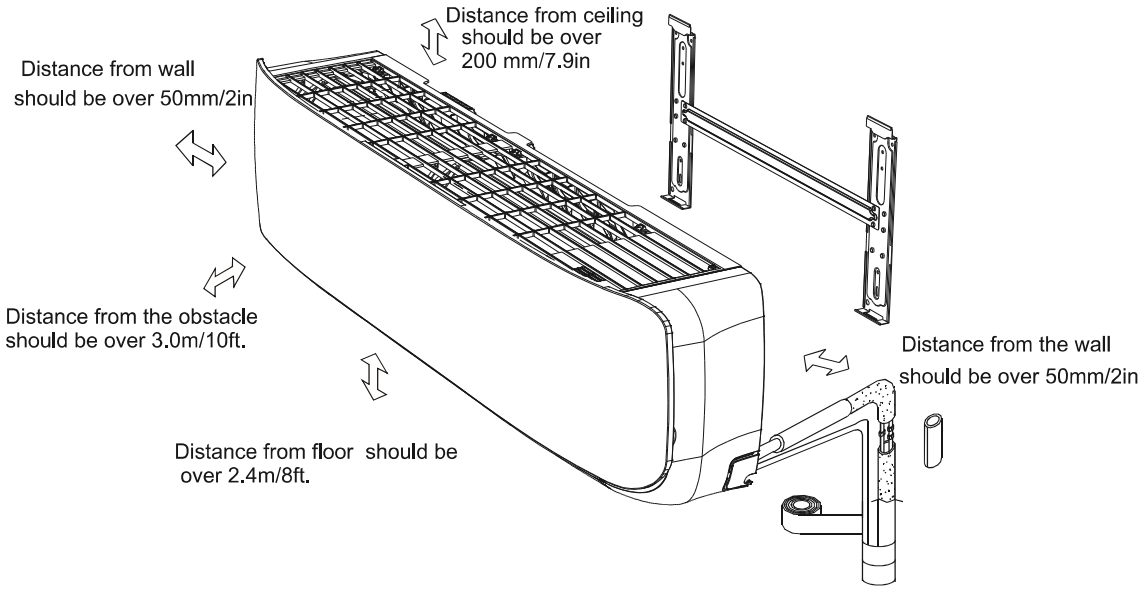
# Installation Instructions

## Installation diagram



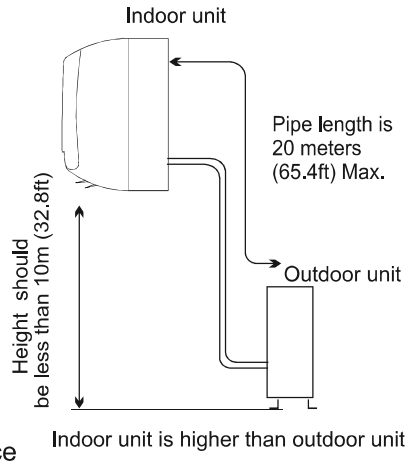

Indoor unit A

- ***Above figure is only a simple presentation of the unit, it may not match the external appearance of the unit you purchased.***
- ***Installation must be performed in accordance with the national wiring standards by authorized personnel only.***

## Site Instructions

***Site for Installing Indoor Unit***

- 1. Where there is no obstacle near the air outlet and air can be easily blown to every corner.
- 2. Where piping and wall hole can be easily arranged.
- 3. Keep the required space from the unit to the ceiling and wall according to the installation diagram on previous page.
- 4. Where the air filter can be easily removed.
- 5. Keep the unit and remote controller 1m(3.28ft) or more apart from television, radio etc.
- 6. Keep as far as possible from fluorescent lamps.
- 7. Do not put anything near the air inlet to obstruct it from air absorption.
- 8. Install on a wall that is strong enough to bear the weight of t he unit.
- 9. Install in a place that will not increase operation noise and vibration.
- 10. Keep away from direct sunlight and heating sources. Do not place flammable materials or combustion apparatuses on top of the unit.




***Installation of outdoor unit refers to the outdoor unit installation manual.***

# Installation Instructions

## Suggested Tools

In order to install your air-conditioner more conveniently and safely, you might use those special tools listed below.

Standard Wrench

Screw Driver

Hex Keys or Allen Wrenches

Adjustable/Crescent Wrench

Torque wrench

Drill & Drill Bits

Manifold and Gauges

Vacuum Pump

Clamp on Amp Meter

Level

Work Gloves

Safety Glasses

Pipe Cutter

Refrigerant Scale

R410A Flaring Tool

Micron Gauge

Hole Saw

# Installation Instructions

## Indoor unit installation

### *1. Installing the Mounting Plate*

#### *FOR the Ordinary Mounting Plate*

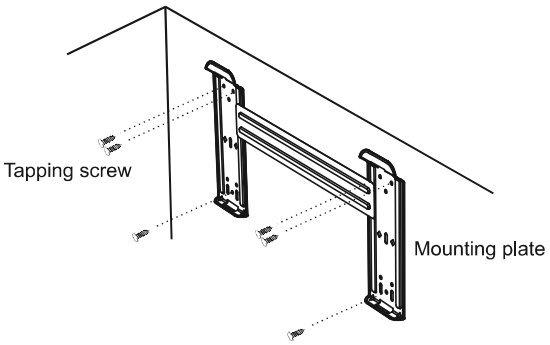
- Decide an installing location for the mounting plate according to the indoor unit location and piping direction.

***Note: it is recommended to install screw anchors for sheet rock, concrete block, brick and such type of wall.***

- Keep the mounting plate horizontal with a horizontal level or dropping line.
- Mark the center of the indoor unit on mounting plate for future reference.

***Note: the center of the mounting bracket may be not the center of the indoor unit.***

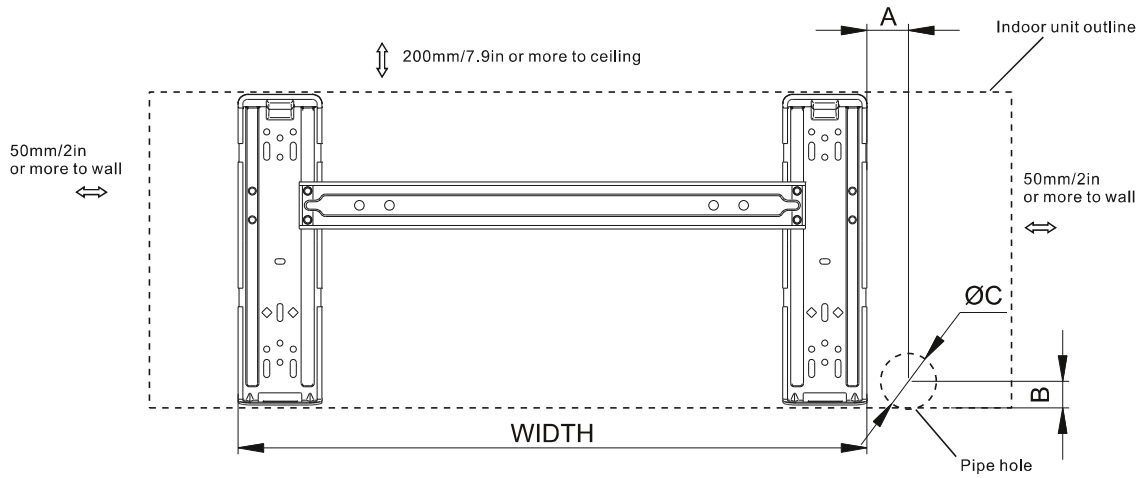
- Tapping mounting plate to the wall with a minimum of five screws, evenly spaced to properly support indoor unit weight.




***Note: The shape of your mounting plate may be different from the one above, but the installation method is similar.***

***Note: As the above figure shown, the six holes matched with tapping screw on the mounting plate must be used to fix the mounting plate, the others are prepared.***

***MOUNTING BRACKET DIAGRAMS AND DIMENSIONS (Recommended)***

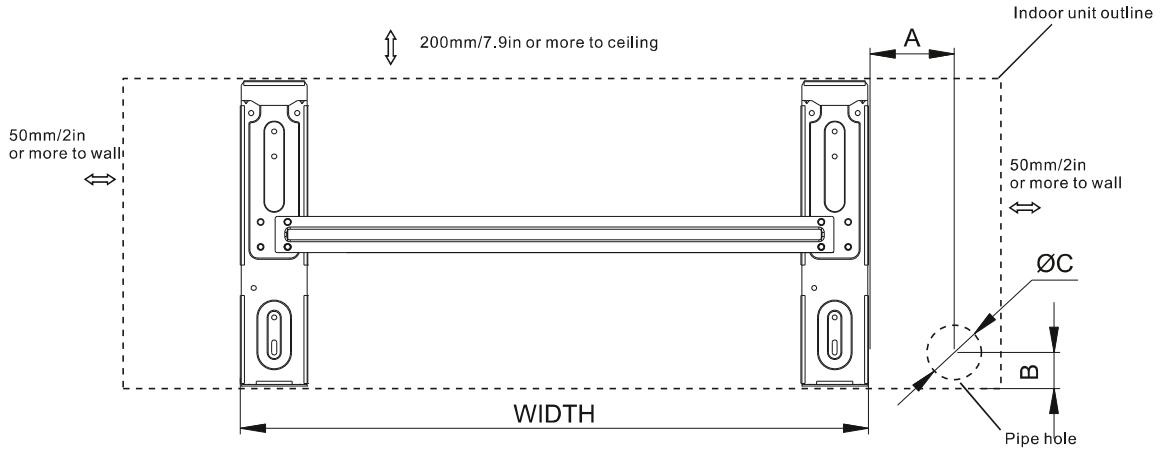



For 738 Series Model, WIDTH:522mm/20.6in
For 808 Series Model, WIDTH:592mm/23.3in

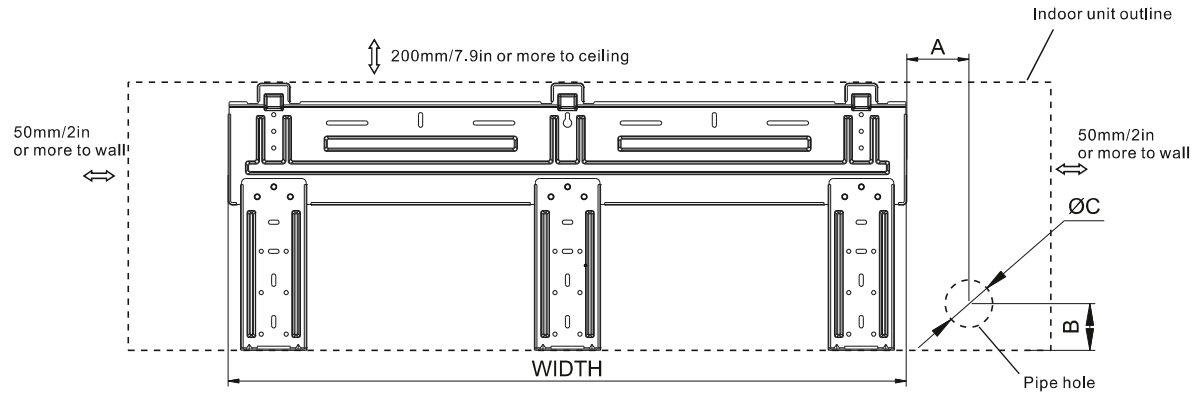
# Installation Instructions

## *FOR the Ordinary Mounting Plate*

### *MOUNTING BRACKET DIAGRAMS AND DIMENSIONS (Recommended)*




For 908/1080 Series Model, WIDTH: 629mm/24.8in




For 1280 Series Model, WIDTH:820mm/32.3in

# Installation Instructions

## Indoor unit installation

### *FOR the Wooden Wall Mounting Plate*

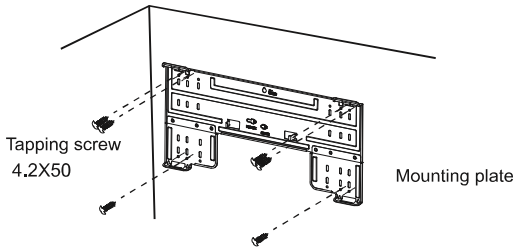
- Decide an installing location for the mounting plate according to the indoor unit location and piping direction.

***Note: it is recommended to install screw anchors for sheet rock, concrete block, brick and such type of wall.***

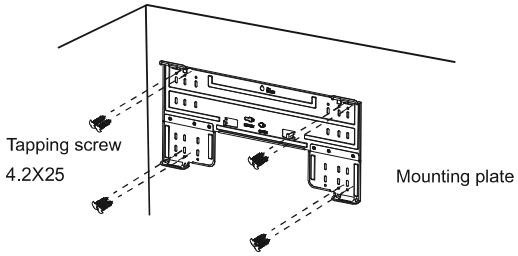
- Keep the mounting plate horizontal with a horizontal level or dropping line.
- Mark the center of the indoor unit on mounting plate for future reference.

***Note: the center of the mounting bracket may be not the center of the indoor unit.***

- Tapping mounting plate to the wall with a minimum of five screws, evenly spaced to properly support indoor unit weight.




Concrete/Brick Wall

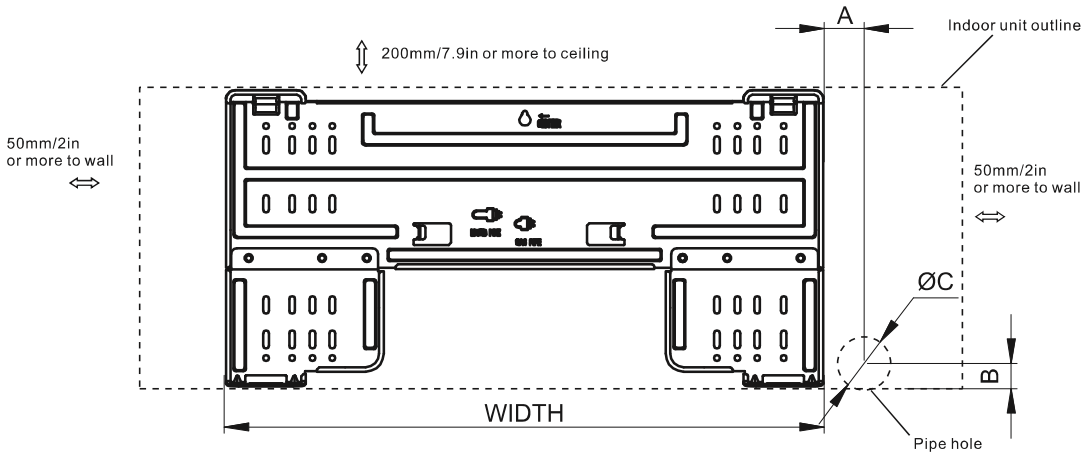



Wooden Wall

***Note: The shape of your mounting plate may be different from the one above, but the installation method is similar.***

***Note: As the above figure shown, the six holes matched with tapping screw on the mounting plate must be used to fix the mounting plate, the others are prepared.***

***MOUNTING BRACKET DIAGRAMS AND DIMENSIONS (Recommended)***

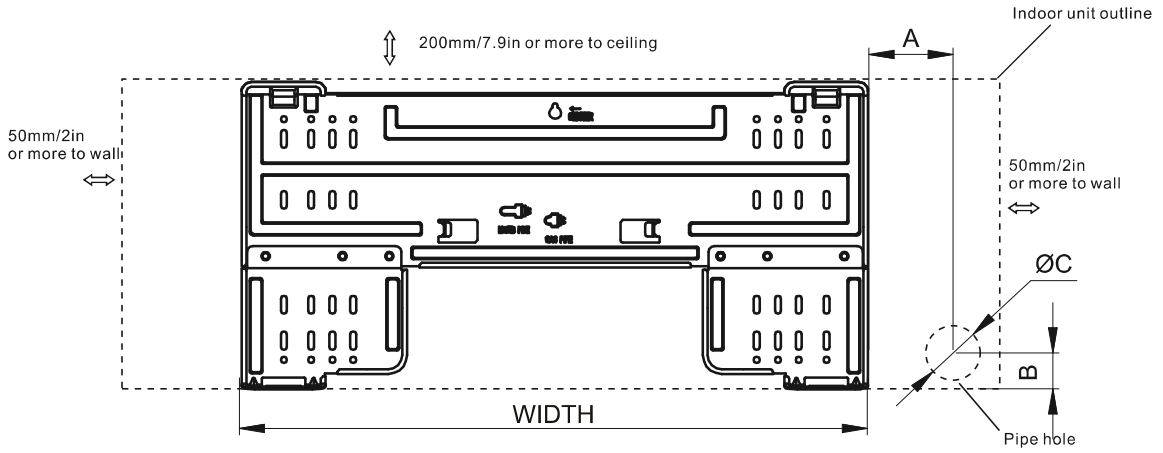



For 738 Series Model, WIDTH:522mm/20.6in
For 808 Series Model, WIDTH:592mm/23.3in

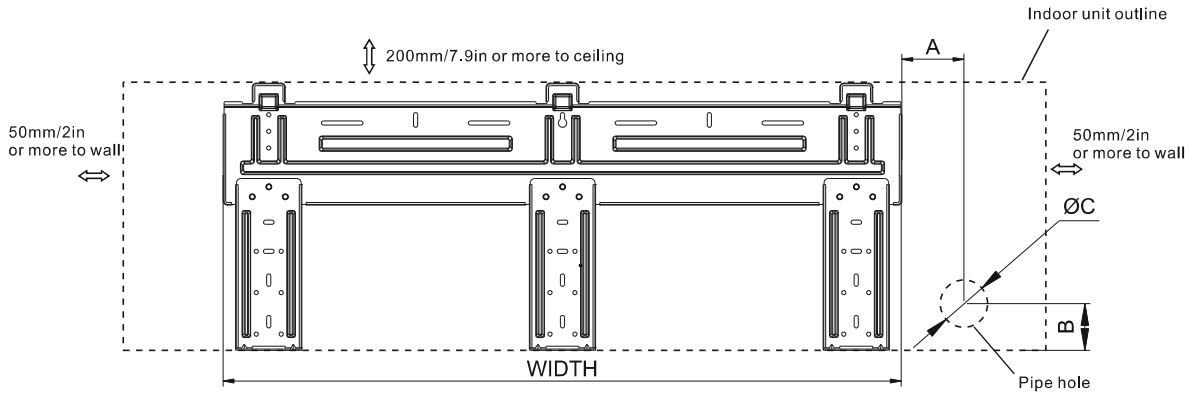
# Installation Instructions

## *FOR the Wooden Wall Mounting Plate*

### *MOUNTING BRACKET DIAGRAMS AND DIMENSIONS (Recommended)*




For 908/1080 Series Model, WIDTH: 629mm/24.8in




For 1280 Series Model, WIDTH:820mm/32.3in

# Installation Instructions

## Indoor unit installation

***2. Drill a Hole in wall for interconnecting Piping, Drain & Wiring***

- Decide the position of the hole for piping according to the location of mounting plate.
- Drill a hole in the wall. The hole should tilt a little downward toward outside.
- Install a sleeve through the wall hole to keep the wall tidy and clean.

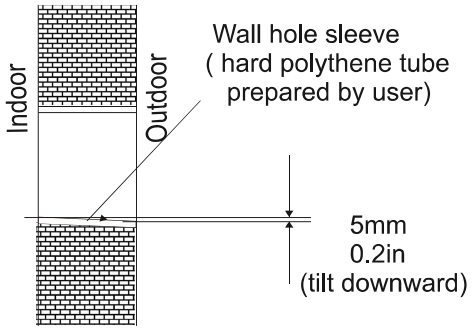
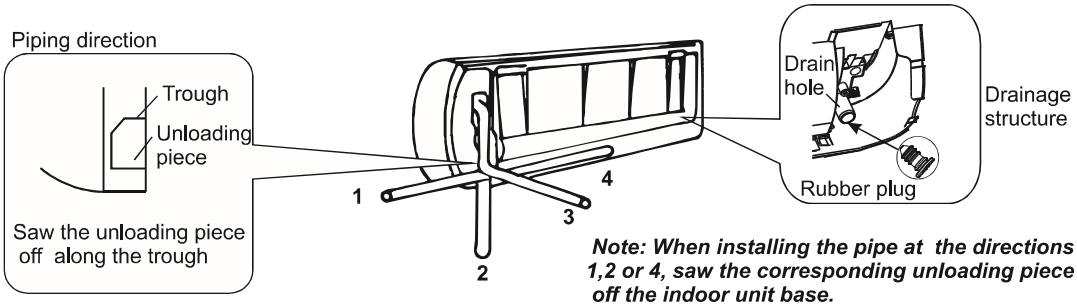



***Table of Wall Hole Mounting size per Unit Size***

| Unit Model | Size A | Size B | Size C |
|---|---|---|---|
| | mm/in | mm/in | mm/in |
| 738 Series | 68/2.68 | 33/1.3 | 70/2.7 |
| 808 Series | 70/2.75 | 35/1.38 | 70/2.7 |
| 908 Series | 137/5.4 | 40/1.57 | 70/2.7 |
| 1080 Series | 170/6.7 | 40/1.57 | 70/2.7 |
| 1280 Series | 64/2.52 | 41.2/1.62 | 70/2.7 |

***3. Piping and Drain Hose Connections to Indoor Unit***

- Put the piping (liquid and gas pipe) and cables through the wall hole from outside or put them through from inside after indoor piping and cables connection is complete to connect to the outdoor unit.
- Decide whether to saw the unloading piece off in accordance with the piping direction.(as shown below)




***Note: When installing the pipe at the directions 1,2 or 4, saw the corresponding unloading piece off the indoor unit base.***

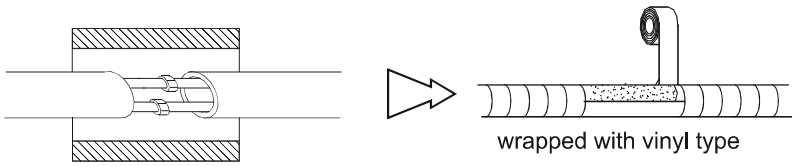
- After connecting the piping , install the drain hose. Then connect the power cords. After connecting, wrap the piping, cords and drain hose together with thermal insulation materials.

***Note: Both sides drainage structure is standard. For both sides drainage structure, it can be chosen for right, left or both sides drainage connection. If choosing both sides drainage connection, another proper drain hose is needed as there is only one drain hose offered by factory. If choosing one side drainage connection, make sure the drain hole on the other side is well plugged.***

# Installation Instructions

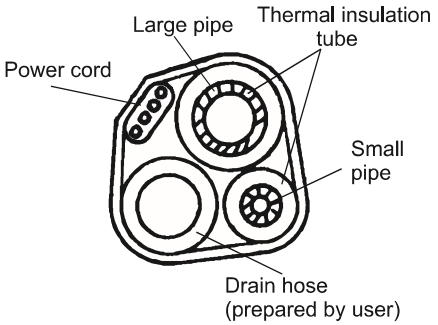
## Indoor unit installation

- ***Piping Joints Thermal Insulation:*** Wrap the piping joints with thermal insulation materials and then wrap with a vinyl tape.

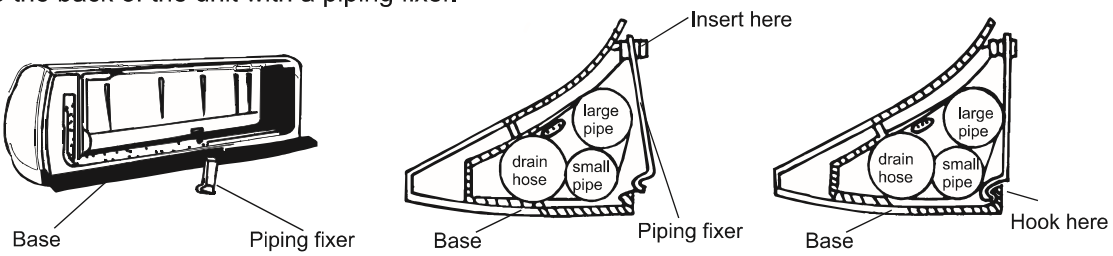



- ***Piping Thermal Insulation:***

a. Place the drain hose under the piping.
b. Insulation material uses polythene foam over 6mm in thickness.
***Note: Drain hose is prepared by user.***



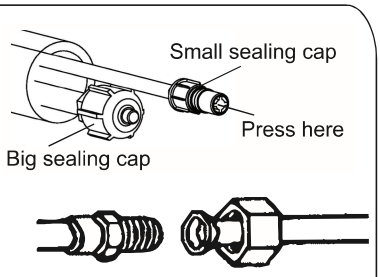

- Do not arrange the drain pipe in a way that leaves it twisted, sticking out or waving around. Do not immerse the end of it in water.
- If an extension drain hose is connected to the drain pipe, make sure to insulated when passing along the indoor unit.
- When the piping is directed to the right, piping, power Cord and drain pipe should be thermal insulated and fixed onto the back of the unit with a piping fixer.




A. Insert the pipe fixer to the slot. B. Press to hook the pipe fixer onto the base.

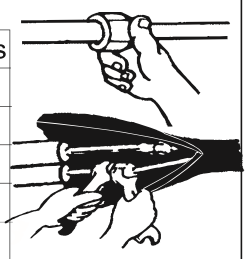
Piping Connection:

a. Before unscrewing the big and the small sealing caps, press the small sealing cap with the finger until the exhaust noise stops, and then loosen the finger.
b. Connect indoor unit pipes with two wrenches. Pay special attention to the allowed torque as shown below to prevent the pipes, connectors and flare nuts from being deformed and damaged.
c. Pre-tighten them with fingers at first, then use the wrenches.




☑ If you don't hear the exhaust noise, please contact with the merchant.

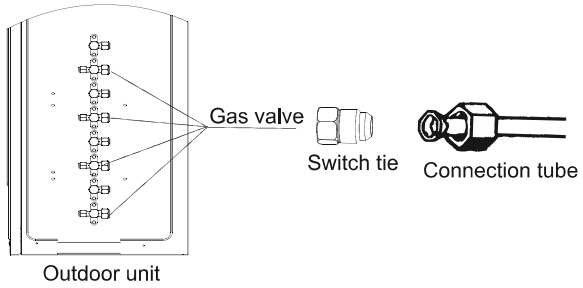
| Model | Pipe size | Torque | Nut width | Min.thickness |
|---|---|---|---|---|
| 9K-18K | Liquid Side ( Φ 6 or 1/4) | 15~20N·m or 11~15ft-lbs | 17 or 5/8 | 0.5 or 0.02 |
| 24K-36K | Liquid Side ( Φ 9.53 or 3/8) | 30~35N·m or 22~26ft-lbs | 22 or 7/8 | 0.6 or 0.024 |
| 9K-12K | Gas Side ( Φ 9.53 or 3/8 ) | 30~35N·m or 22~26ft-lbs | 22 or 7/8 | 0.6 or 0.024 |
| 18K | Gas Side ( Φ 12 or 1/2 ) | 50~55N·m or 37~41ft-lbs | 24 or 0.94 | 0.6 or 0.024 |
| 24K-36K | Gas Side ( Φ 16 or 5/8) | 60~65N·m or 44~48ft-lbs | 27 or 1.1 | 0.6 or 0.024 |
| | | | | |



**NOTE:**
Dimensions are in “mm or inch” unless otherwise stated in the table.

# Installation Instructions

The 18k indoor unit include the switch tie-in accessory only for 18K indoor. It may switch 9.52 gas connection tube into 12.7 connection tube.
It is installed outdoor unit.



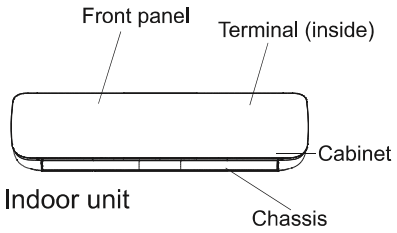

## Power and Wiring

### *Connecting of the Cable*

- Indoor Unit

Connect the power cord to the indoor unit by connecting the wires to the terminals on the control board individually in accordance with the outdoor unit connection.

**Note: For some models, it is necessary to remove the cabinet to connect to the indoor unit terminal.**




The figures in this manual are based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner you have selected.

Caution:

1. Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, refer to the circuit diagram posted on the inside of the access door .
2. Comfirm that the cable thickness is as specified in the power source specification.
3. Check the wires and make sure that they are all tightly fastened after cable connection.
4. Be sure to install an earth leakage circuit breaker in wet or moist areas.

***Cable Specifications***

| capacity(Btuh) | Power cord | | Power connecting cord | |
|---|---|---|---|---|
| | Type | Normal cross-sectional areas | Type | Normal cross-sectional areas |
| 9K-12K(208/230V) | SJ TW | 3X16 AWG | SJ TW | 4X18 AWG |
| 18K(208/230V) | SJ TW | 3X14 AWG | SJ TW | 4X18 AWG |
| 24K-36K(208/230V) | SJ TW | 3X12 AWG | SJ TW | 4X18 AWG |
| 9K,12K(115V) | SJ TW | 3X14 AWG | SJ TW | 4X18 AWG |

**Attention:**

**The plug must be accessible even after the installation of the appliance in case there is a need to disconnect it. If not possible, connect appliance to a double-pole switching device with contact separation of at least 3 mm placed in an accessible position even after installation.**

# Installation Instructions

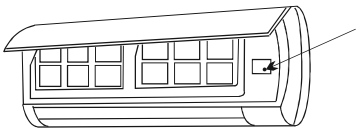
## Wiring diagram

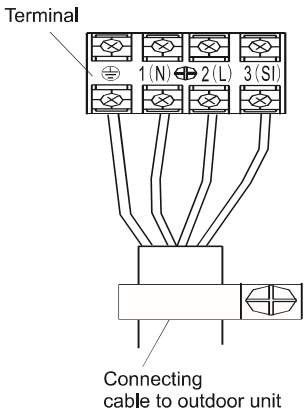
***Make sure that the color of the wires in the outdoor unit and terminal No. are the same as those of the indoor unit.***

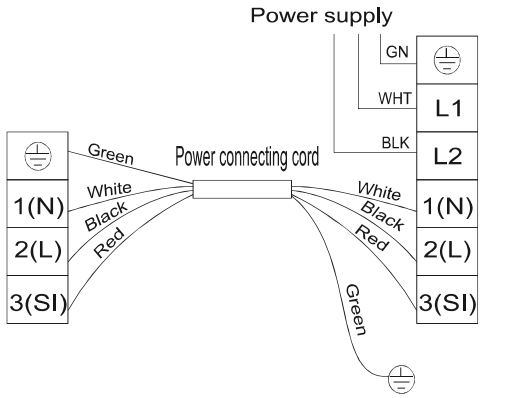
***⚠Warning: Before obtaining access to terminals, all supply circuits must be disconnected.***

**(1) 208/230V**

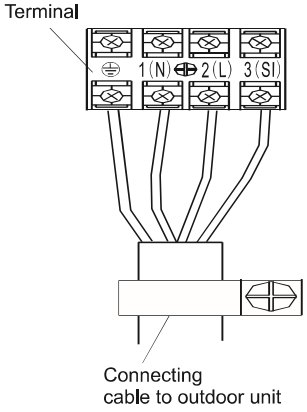
**For the mono split**

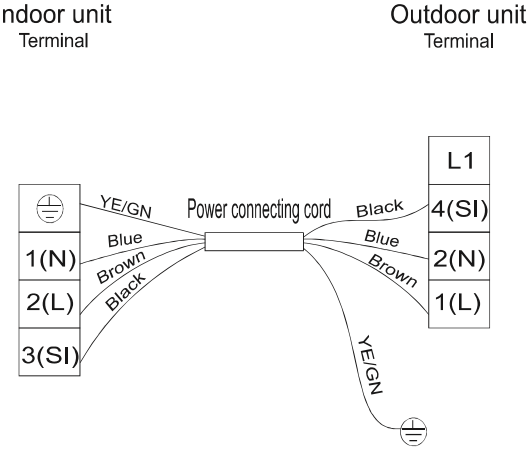





**For the multi interver**




**☑ The diagram is reference only, and the actual terminal shall prevail.**

# Installation Instructions

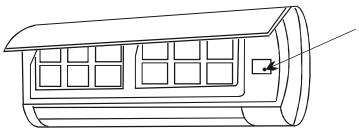
## Wiring diagram

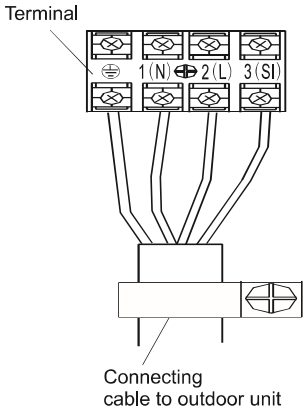
***Make sure that the color of the wires in the outdoor unit and terminal No. are the same as those of the indoor unit.***

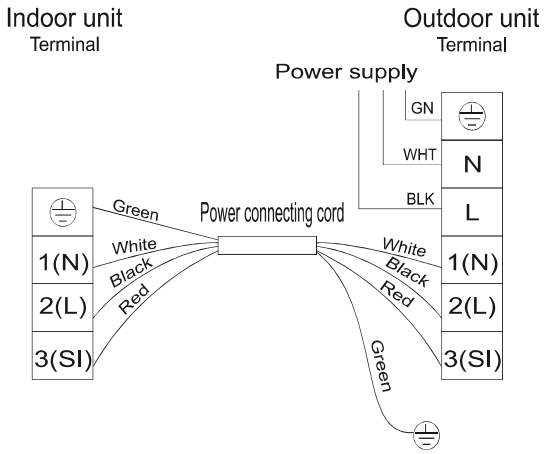
***⚠Warning: Before obtaining access to terminals, all supply circuits must be disconnected.***

**(2) 115V**

**For the mono split**






**For the multi interver**

( Currently unavailable. )

☑ **The diagram is reference only, and the actual terminal shall prevail.**

# Installation Instructions

## Start-up

### *Test Operation*

Perform test operation after completing gas leak and electrical safety check.

1.Turn on electrical disconnect to outdoor unit.
2.Push the “ON/OFF” button on Remote Controller to begin testing.
3.Push MODE button, select COOLING, HEATING, FAN mode to confirm all functions.

### *System Checks*

1.Conceal refrigerant pipes where possible.
2.Make sure drain hose slopes downward along entire length.
3.Ensure all refrigerant pipes and connections are properly insulated.
4.Fasten pipes to outside wall, when possible.
5.Seal and weatherproof wall hole which the interconnecting wires and refrigerant pipes pass through.

### *Indoor Unit*

1.Do all Remote controller’s buttons function properly?
2.Do the display panel lights work properly?
3.Does the swing louver function properly?
4.Does the drain work?

### *Outdoor Unit*

1.Push the mode button to COOL and adjust the room setting to 61 ℉(16℃) deg. wait up to 3 minutes from compressor time guard. Does compressor and outdoor fan turn on in cooling mode?

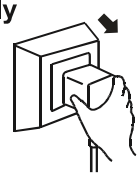
2.Push the mode button to HEAT and adjust the room setting to 85 ℉(30℃) deg. wait up to 3 minutes for compressor time guard. Does compressor and outdoor fan turn on in heat mode?

# Care and Maintenance

## Front panel maintenance

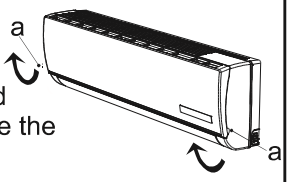
**1 Cut off the power supply**

Turn off the appliance first before disconnecting from power supply.



**2**

Grasp position "a" and pull outward to remove the front panel.

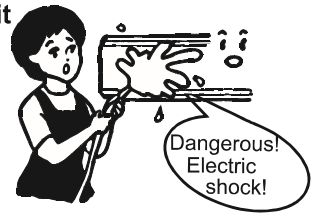



**3 Wipe with a soft and dry cloth.**

Use soft moisture cloth to clean if the front panel is very dirty.

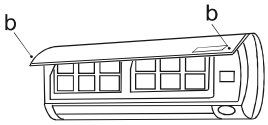

**4 Never use volatile substance such as gasoline or polishing powder to clean the appliance.**

**5 Never sprinkle water onto the indoor unit**




**6 Reinstall and shut the front panel.**

Reinstall and shut the front panel by pressing position "b" downward.

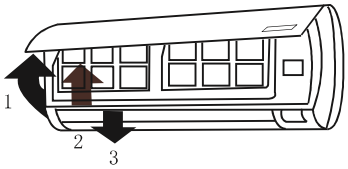



## Air filter maintenance

**It is necessary to clean the air filter after using it for about 200 hours.**

**Clean it as follows:**

**1 Stop the appliance and remove the air filter.**




1.Open the front panel.
2.Press the handle of the filter gently from the front.
3. Grasp the handle and slide out the filter.

**2 Clean and reinstall the air filter.**

If the dirt is conspicuous, wash it with a solution of detergent in lukewarm water. After cleaning, dry well in shade.

**3 Close the front panel again.**

☑ ***Clean the air filter every two weeks if the air conditioner operates in an extremely dusty environment.***

# Protection

## Operating condition

***The protective device maybe trip and stop the appliance in the cases listed below.***

| | |
|---|---|
| **HEATING** | Outdoor air temperature is over 75℉(24℃) |
| | Outdoor air temperature is below 5℉(-15℃) |
| | Room temperature is over 80.6℉(27℃) |
| **COOLING** | Outdoor air temperature is over *115℉(46℃) |
| | Room temperature is below 70℉(21℃) |
| **DRY** | Room temperature is below 64.5℉(18℃) |

***For Tropical (T3) Climate condition models, the temperature point is 131**℉(55℃) ***instead of 109**℉(43℃).
***The temperature of some products is allowed beyond the range. In specific situation, please consult the merchant.***

***If the air conditioner runs in COOLING or DRY mode with door or window opened for a long time when relative humidity is above 80%,dew may drip down from the outlet.***

## Noise pollution

- Install the air conditioner at a place that can bear its weight in order to operate more quietly.
- Install the outdoor unit at a place where the air discharged and the operation noise would not annoy your neighbors.
- Do not place any obstacles in front of the air outlet of the outdoor unit lest it increases the noise level.

## Features of protector

**The protective device will work at following cases.**

❶ Restarting the unit at once after operation stops or changing mode during operation, you need to wait 3 minutes.

❷ If all operation has stopped, press **ON/OFF**button again to restart, Timer should be set again if it has been canceled.

## Features of HEATING mode

### *Preheat*

At the beginning of the HEATING operation, the airflow from the indoor unit is discharged 2-5 minutes later.

### *Defrost*

In **HEATING** operation the appliance will defrost (de-ice) automatically to raise efficiency. This procedure usually lasts 2-10 minutes. During defrosting, fans stop operation. After defrosting completes, it returns to **HEATING** mode automatically.

***Note: Heating is NOT available for cooling only air conditioner models.***

# *Energy Saving Tips*

1. **Relaxing room temperature at night is OK:** During the nighttime hours you don't require the same level of conscious cooling or heating. Try using Sleep mode to gradually relax room temperature and allow the unit to run less and save energy.

**2.Curtains and shades:** In the summer, you need to block the effects of the sun. Close window curtains and shades on the south and west side of your home to help block solar heat. In winter, the sun is your friend. Open curtains and shades to allow solar heat into your room.

**3.Close doors:** If you don't need to heat and cool your whole home, confine the heating and cooling to one room by closing doors. Limit the space you're heating and cooling to specified capability of the unit.

**4.Service the unit:** Some basic maintenance might be all you need. The outdoor unit will greatly benefit from a good hosing out, especially in treed areas where seeds and other debris can stick to coil fins and make the unit work harder!

**5.Rearrange the room:** Furniture that obstructs airflow means you could be heating and cooling the back of a chair or the front of a sofa instead of the actual living space. Use the swing louvers to help direct the air in the right direction for the room; remove or rearrange obstacles blocking airflow.

**6.Try 75 degrees:** 75℉(24℃) is a good point for an air conditioner to run at its optimal performance level. Even a 1-degree change in temperature can make your unit use more energy!

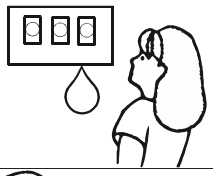
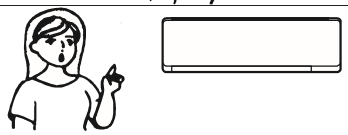
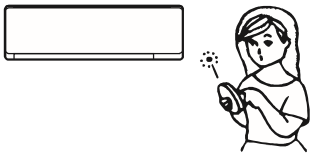
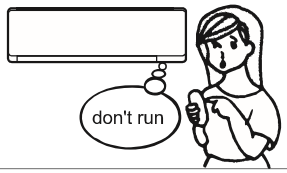
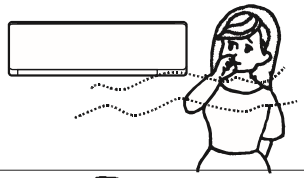
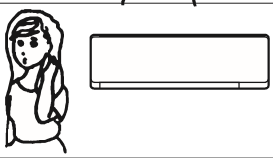
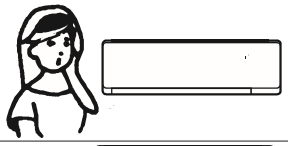
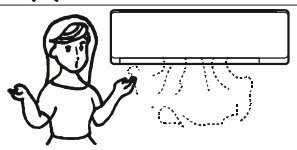
**7.Lighting:** Turning lights off can help reduce your heat. Each light bulb is a tiny heater. Your air conditioner must waste energy overcoming the heat from your lights to reach and hold your desired room temperature.

**8.Is anyone home?** If possible, while you're away turn your unit to Auto mode and make sure windows and drapes are closed. Although the room temperature will be uncomfortable for a few minutes when you come home, the unit will have the room back to your desired temperature in no time.

**9.Don't forget the fan:** The fan is much like a car. The faster it runs, the more energy is consumed. Sometimes we need the car to go fast, but slow is good enough most of the time. Try saving money by using the comfortable quiet low fan speed as much as possible.

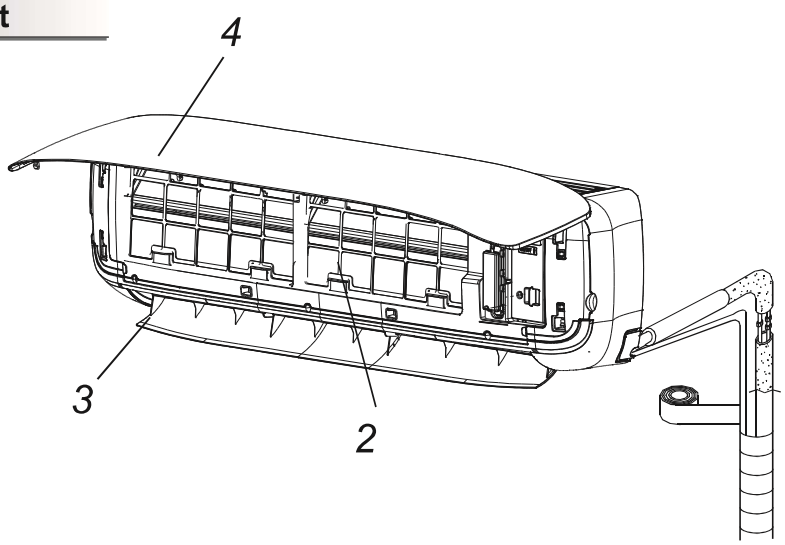
# Troubleshooting

***The following cases may not always be a malfunction, please check it before asking for service.***

| Trouble | Analysis |
|---|---|
| Does not run  | • If the protector trip or fuse is blown.<br>• Please wait for 3 minutes and start again, protector device may be preventing unit to work.<br>• If batteries in the remote controller exhausted.<br>• If the plug is not properly plugged. |
| No cooling or heating air  | • Is the air filter dirty?<br>• Are the intakes and outlets of the air conditioner blocked?<br>• Is the temperature set properly? |
| Ineffective control  | • If strong interference(from excessive static electricity discharge, power supply voltage abnormality)presents, operation will be abnormal. At this time, disconnect from the power supply and connect back 2-3 seconds later. |
| Does not operate immediately   | • Changing mode during operation, 3 minutes will delay. |
| Peculiar odor  | • This odor may come from another source such as furniture, cigarette etc, which is sucked in the unit and blows out with the air. |
| A sound of flowing water  | • Caused by the flow of refrigerant in the air conditioner, not a trouble.<br>• Defrosting sound in heating mode. |
| Cracking sound is heard  | • The sound may be generated by the expansion or contraction of the front panel due to change of temperature. |
| Spray mist from the outlet  | • Mist appears when the room air becomes very cold because of cool air discharged from indoor unit during **COOLING** or **DRY** operation mode. |
| The running indicator flashes on constantly, and indoor fan stops. | • The unit is shifting from heating mode to defrost. The indicator will flash within twelve minutes and returns to heating mode. |
| Mode interfere<br>For the reason that all indoor units use one outdoor unit, outdoor unit can only run with same mode (cooling or heating),so,when the mode you set is different from the mode that outdoor is running with, mode interfere occurs. Following shows the mode interfere scene. | <table><tr><th></th><th>cooling</th><th>dry</th><th>heating</th><th>fan</th></tr><tr><td>cooling</td><td>√</td><td>√</td><td>×</td><td>√</td></tr><tr><td>dry</td><td>√</td><td>√</td><td>×</td><td>√</td></tr><tr><td>heating</td><td>×</td><td>×</td><td>√</td><td>×</td></tr><tr><td>fan</td><td>√</td><td>√</td><td>×</td><td>√</td></tr></table> √ --- normal<br>× --- mode interfere<br>outdoor unit always run with the mode of first indoor unit that turned on. when the setting mode of following indoor unit is interfered with it, 3 beeps would be heard, and the indoor unit interfered with the normal running units would turn off automatically. |

# Identification of Parts

## Indoor unit

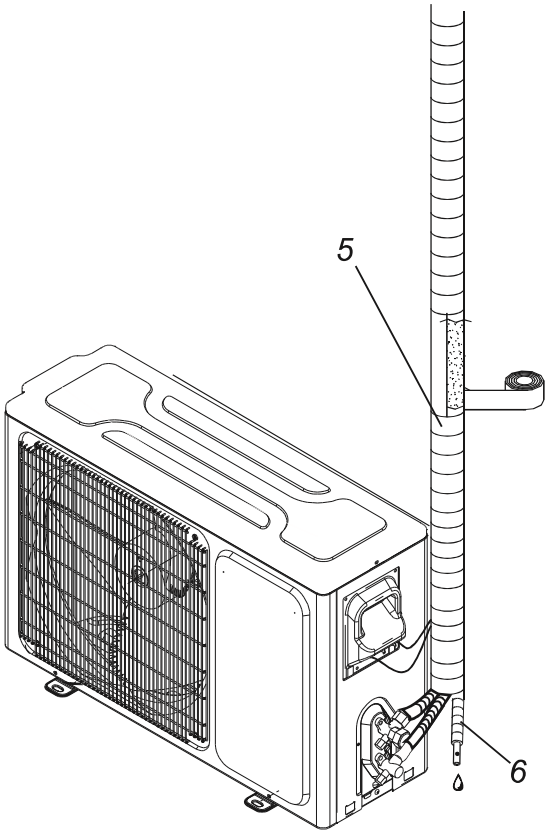




*Part Name*

1. Remote Controller
2. Air Filter
3. Horizontal Louvers
4. Front Panel
5. Pipes and Power Connection Cord
6. Drain Hose

## Outdoor unit




The figures in this manual are based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner you have selected.

# Display Introduction

Temperature indicator ..... 1

- Display set temperature.
- It shows FC after 200 hours of usage as reminder to clean the filter.
- After filter cleaning press the filter reset button located on the indoor unit behind the front panel in order to reset the display.(optional)

Running indicator ..... 2

It lights up when the AC is running.
It flashes during defrosting.

Timer indicator ..... 3

It lights up during set time.

Sleep indicator ..... 4

It lights up in sleep mode.

Compressor indicator ..... 5

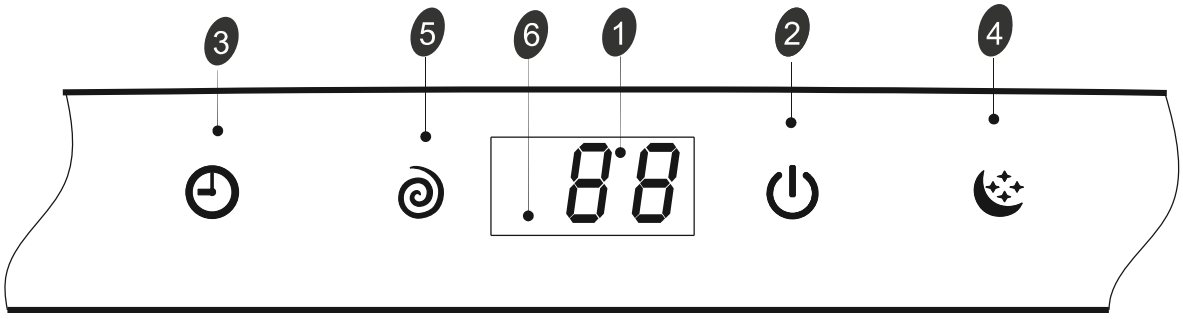
It lights up when the compressor is on.

Signal Receptor ..... 6

Smart WIFI indicator ..... 7

It lights up during WIFI is on.

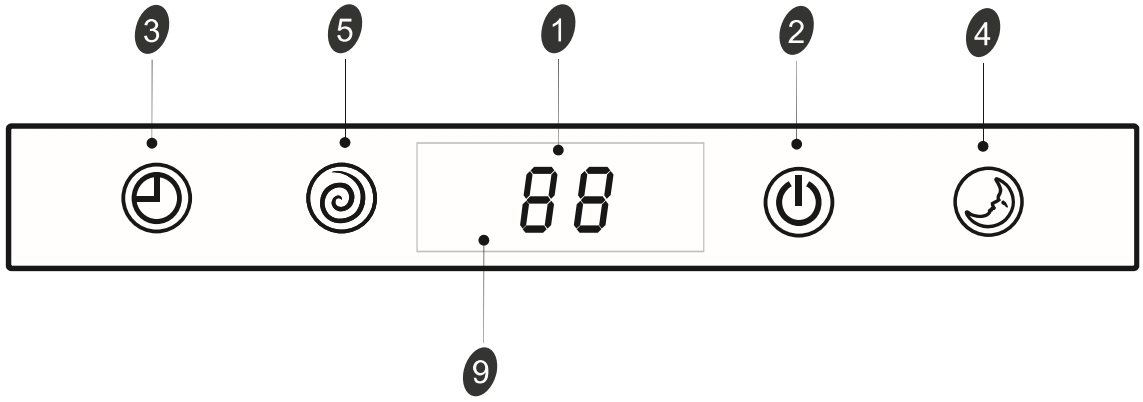
**VQ/TE/TF/DA/DG(Middle)/DH/DL(Right side) series**



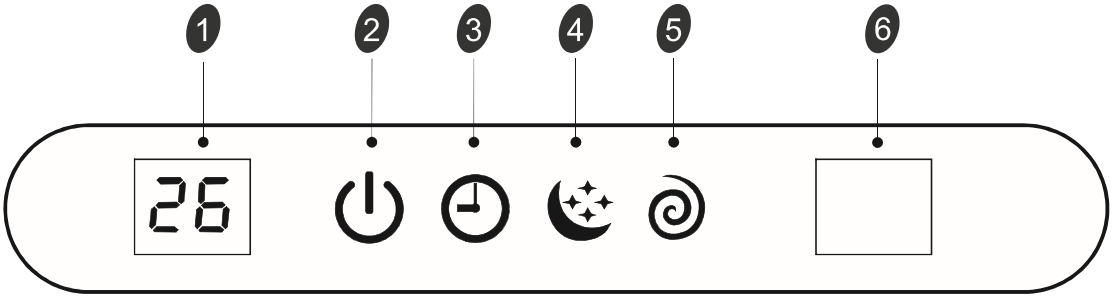

*The symbols may be different from these models, but the functions are similar.*

# Display Introduction

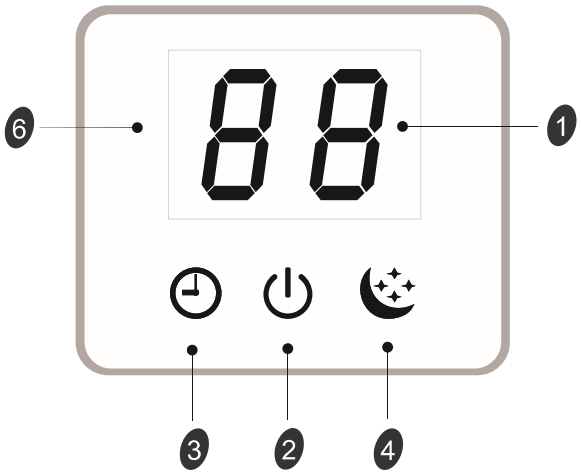
**VT series**




**DG(Right side) series**



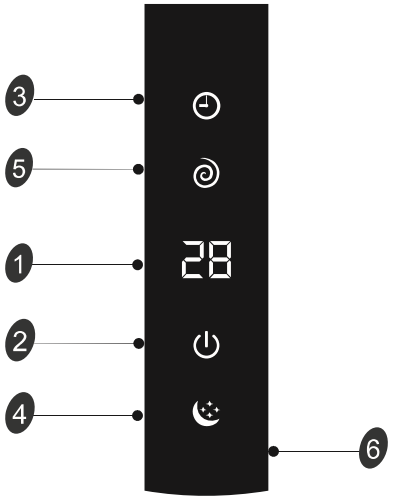

**TD/TG/TS/DB/DC/DJ/DK/DL(Middle) series**



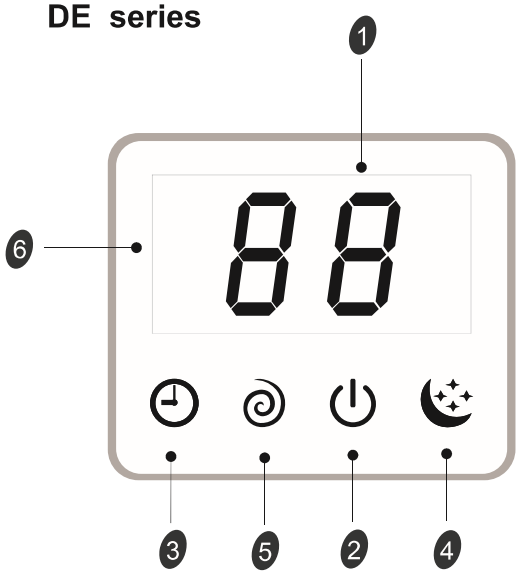

*The symbols may be different from these models, but the functions are similar.*

# Display Introduction

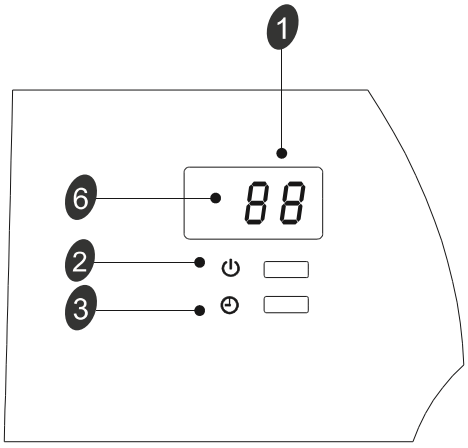
**DF series**



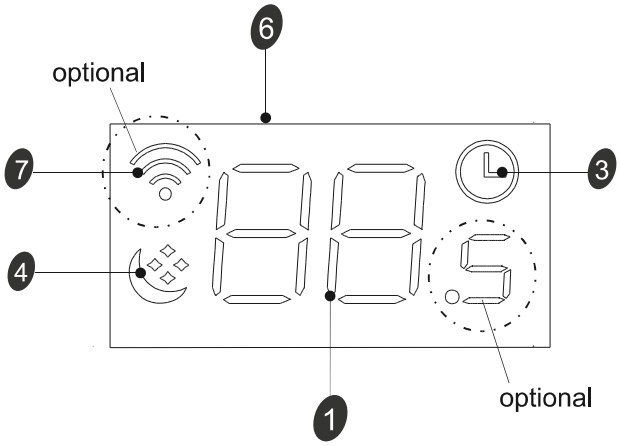

**DE series**



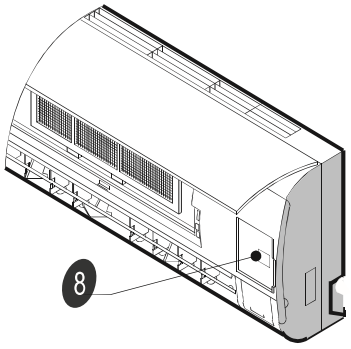

**TA/TC series**




**TQ/TR series**




Emergency button 8




**ON/OFF** To let the AC run or stop by pressing the button.

***The symbols may be different from these models, but the functions are similar.***