

OWNER'S MANUAL

AIR CONDITIONER

Please read this manual carefully before operating your set and retain it for future reference.

TYPE : WALL MOUNTED

The equipment complies with requirements of the Technical Regulation, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipments.



P/No. MFL39754871

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TIPS FOR SAVING ENERGY

Here are some tips that will help you minimize the power consumption when you use the air conditioner. You can use your air conditioner more efficiently by referring to the instructions below:

- Avoid excessive cooling. This may be harmful for your health and may consume more electricity.
- Block sunlight with blinds or curtains while you are operating the air conditioner.
- Keep doors or windows closed tightly while you are operating the air conditioner.
- Adjust the direction of the air flow vertically or horizontally to circulate indoor air.
- Speed up the fan to cool or warm indoor air quickly, in a short period of time.
- Open windows regularly for ventilation as the indoor air quality may deteriorate if the air conditioner is used for many hours.
- Clean the air filter once every 2 weeks. Dust and impurities collected in the air filter may block the air flow or reduce the cooling/ dehumidification functions

For your records

Staple your receipt to this page in case you need it to prove the date of purchase or for warranty purpose. Write the model number and the serial number here:

Model number : _____

Serial number : _____

You can find them on a label on the side of each unit.

Dealer's name : _____

Date of purchase : _____

IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product

WARNING

It can result in serious injury or death when the directions are ignored

CAUTION

It can result in minor injury or product damage when the directions are ignored

WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- Air conditioner shall be installed in accordance with national wiring regulations.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid hazards.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.
- 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 instructions concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only and using genuine replacement parts.

Installation

- Use a standard circuit breaker and fuse confirming with the rating of the air conditioner. Failure to do so may result in electric shock or product failure.
- Contact an authorized service center when you install or relocate the air conditioner. Failure to do so may result in serious injury or product failure.
- Always use a power plug and socket with a ground terminal. Failure to do so may result in electric shock or product failure
- Install the panel and the cover of the control box safely. Failure to do so may result in explosion or fire.
- Use a standard circuit breaker and fuse conforming with the rating of the air conditioner. Failure to do so may result in electric shock or product failure.
- Do not modify or extend the power cable. If the power cable or cord has scratches or skin peeled off or deteriorated then it must be replaced. It may result in fire or electric shock.
- Be cautious when you unpack or install the air conditioner. Failure to do so may result in serious injury or product failure.

- Do not install the air conditioner on an unstable surface or where there may be a danger of unit falling. It may result in death, serious injury, or product failure.

Operation

- Do not let the air conditioner run for long time when the humidity is very high or when a door or window has been left open. Failure to do so may effect product performance or result in product failure.
- Make sure that the power cord is not pulled or damaged while the air conditioner is operating. Failure to do so may result in fire, electric shock, or product failure.
- Do not place any objects on the power cord. It may result in electric shock or product failure.
- Do not turn ON or OFF the air conditioner by plugging in or unplugging the power plug. It may result in fire or electric shock.
- Do not touch, operate or repair the air conditioner with wet hands. It may result in electric shock or product failure.
- Do not place a heater or other heating appliances near the power cable. It may result in fire, electric shock, or product failure.
- Do not allow water to enter into the air conditioner. It may result in explosion or fire.
- Do not leave flammable substances such as gasoline, benzene and thinner near the air conditioner. It may result in explosion or fire.
- Do not use the air conditioner for an extended period of time in a small place without ventilation. Ventilate the place regularly. Failure to do so may result in explosion or fire.
- When there is a gas leak, ventilate sufficiently before using the air conditioner again. Failure to do so may result in explosion or fire.
- Unplug the power plug if there is a noise, smell or smoke coming from the air conditioner. Failure to do so may result in explosion or fire.
- Stop operating and close the window in storm or hurricane. If possible remove the product from the window before hurricane arrives
- Do not touch the electrostatic filter after opening the front grille. Failure to do so may result in electric shock or product failure.
- Contact an authorized service center when the air conditioner is submerged into water due to flooding. Failure to do so may result in explosion or fire.
- Make sure to ventilate sufficiently when this air conditioner and a heating appliance such as a heater are used simultaneously. Failure to do so may result in fire, serious injury, or product failure.
- Turn the main power OFF and unplug the power plug when you clean or repair the air conditioner. Failure to do so may result in death, serious injury, or product failure.
- Unplug the power plug when the air conditioner is not used for an extended period of time. Failure to do so may result in product failure.
- Do not place any objects on the air conditioner. It may result in product failure.

WARNING

- For inner cleaning, contact an Authorized Service Center or a dealer. Do not use harsh detergent that causes corrosion or damage on the unit. Harsh detergent may also cause failure of product, fire, or electronic shock.



CAUTION

Installation

- Do not install the air conditioner where there is direct sunlight. It may effect product performance.
- Safely dispose of packing materials such as screws, nails or batteries in a packing bag after installation or repair. It may result in serious injury.
- Do not install the air conditioner where it will be exposed to sea wind (salt spray) directly. It may result in product failure.
- Install the drain hose properly for smooth drainage of condensed water. Failure to do so may result in product failure.
- Install the air conditioner where the noise from the outdoor unit or the exhaust gas will not cause inconvenience to neighbors. Failure to do so may result in conflict between neighbors.
- Do not touch the refrigerant leakage during installation or repair. It may result in product failure.
- When transporting the equipment, there should be at least 2 or more people, or a forklift, Failure to do so may result in serious injury.

Operation

- Do not expose people, animals or plants to the cold or hot wind from the air conditioner. It may result in health complications or serious injury.
- Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system. It may result in death, fire or electric shock.
- Do not block the inlet or outlet of air flow. It may result in explosion or product failure.
- Do not use strong cleaning agents or solvents for air conditioner cleaning it may effect product performance or result in product failure
- Never touch the metal parts of the air conditioner when you remove the air filter. It may result in serious injury or product failure.
- Always insert the filter securely after cleaning. Clean the filter in every two weeks or more often if necessary.
- Do not insert hands or other objects through the air inlet or outlet while the air conditioner is operating. It may result in electric shock or serious injury.
- Do not drink the water drained from the air conditioner. It may result in serious health complications.
- Use a sturdy stool or ladder when you clean, maintain or repair the air conditioner at a height. Failure to do so may result in serious injury or product failure.
- Do not mix the batteries for the remote control with other types of batteries or mix new batteries with used batteries. Failure to do so may result in product failure.
- Do not recharge or disassemble the batteries. Failure to do so may result in explosion, fire or serious injury.
- Stop using the remote control if there is a battery fluid leak. If your cloth or skin is exposed to the battery fluid from a leak, wash it off with clean water. Failure to do so may result in serious injury.
- If you swallow the battery fluid from a leak, wash out the inside of your mouth thoroughly and then consult a doctor. Failure to do so may result in serious health complications.

BEFORE USE

Prior to Operation

Preparing for Operation

1. Contact an installation specialist for installation.
2. Plug in the power plug properly.
3. Use a dedicated circuit breaker.
4. Do not use an extension cord.
5. Do not start/stop operation by plugging/unplugging the power cord.
6. If the cord/plug is damaged, replace it with only an authorized replacement part.

Usage

1. Being exposed to direct airflow for a long time may be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for a long time.
2. Due to the possibility of oxygen deficiency, ventilate the room when using the appliance together with stoves or other heating devices.
3. Do not use this air conditioner for non-specified special purpose (e.g. preserving precision devices, food, pets, plants, or art objects). Such use may damage your properties.

Cleaning and Maintenance

1. Do not touch the metal parts of the unit when removing the filter injury may occur.
2. Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to electric shock.
3. When cleaning the unit, first make sure that the power and circuit breaker are turned OFF. The fan rotates at a very high speed during operation. There is a possibility of injury if the unit's power is triggered while cleaning inner parts of the unit.

Service

For repair and maintenance, contact your authorized service dealer.

Components

Symbols used in this Manual



This symbol alerts you to the risk of electric shock.



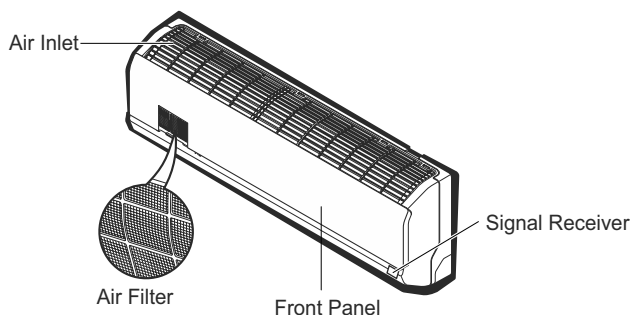
This symbol alerts you to hazards that may cause harm to the air conditioner.



NOTE This symbol indicates special notes.

Components

Indoor unit

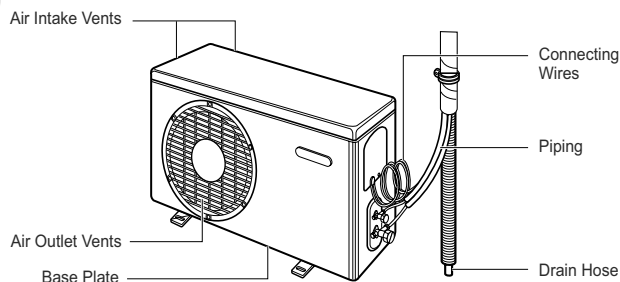


NOTE

The number of operation lamps and their locations may vary, depending on the model of the air conditioner.

Product look and picture are for reference only, actual product may vary depending on model of the air conditioner.

Outdoor unit



* The feature can be changed according to the type of model.

Operation ranges

The table below indicates the temperature ranges the air conditioner can be operated within.

| Mode | Indoor temperature | outdoor temperature |
|---------|--------------------|---------------------|
| Cooling | 18°C~30°C | 18°C~48°C |
| Heating | 16°C~30°C | -5°C~24°C |

Electrical Safety

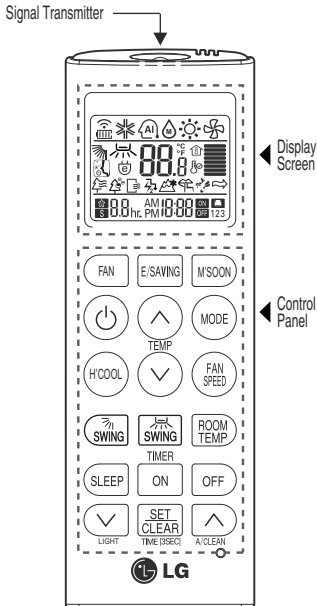
⚠ WARNING

- This appliance must be properly grounded.
To minimize the risk of electric shock, you must always plug into a grounded outlet.
- Do not cut or remove the grounding.
- Attaching the adapter ground terminal to the wall receptacle cover screw does not ground the appliance unless the cover screw is metal and not insulated, and the wall receptacle is grounded through the house wiring.
- If you have any doubt whether the air conditioner is properly grounded, have the wall receptacle and circuit checked by a qualified electrician.

Using the remote control

You can operate the air conditioner more conveniently with the remote control.

Wireless remote control



| Control panel | Display screen | Description |
|---------------|----------------|---|
| | | Air Circulation button*: Used to circulate the room air without cooling or heating. |
| | | Sleep mode auto button*: Sets the sleep mode auto operation. |
| | | Temperature adjustment buttons: Adjusts the desired room temperature when cooling or heating. |
| | - | ON/OFF button: Turns the air conditioner ON / OFF |
| | | Indoor fan speed button: Adjusts the fan speed. |
| | | Operation mode selection button*: Selects the operation mode. Cooling operation (❄️) / Auto operation or auto changeover (⚙️) / Heating - operation* (🔥) / Air circulation* (🌀) |
| | | Monsoon mode selection button*: Use to remove excess moisture. |
| | | H'COOL button* : Cools down the indoor temperature within a short period of time |
| | | Air flow direction button: Adjusts the air flow direction. |
| | | Temperature Display : Display the room temperature. |
| | | Timer button: Sets the current time and the start / end time |
| | | Functions button*: Adjusts the time and sets the special functions. 🧼: Auto clean / ⚡: Operates energy saving cooling / 🌞: Turn indoor unit display ON or OFF. |
| | - | Set/clear button: Set or cancel functions and set current time. |
| | - | Reset button: Initialize the remote controller settings. |

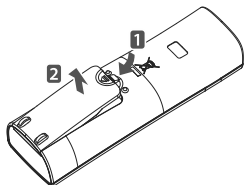
* Some functions may not be supported, depending on the model.

💡* Symbol is for indoor unit display ON/OFF not for remote controller display.

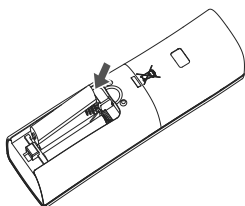
Inserting batteries

Insert batteries before using the remote control. The battery type used is AAA (1.5 V).

- 1 Remove the battery cover.



- 2 Insert the new batteries and make sure that the + and - terminals of the batteries are installed correctly.



- 3 Reattach the battery cover.

! NOTE

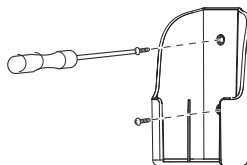
If the display screen of the remote control starts to fade, replace the batteries.

Installing the remote control holder

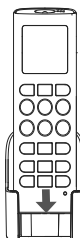
Install the holder where there is no direct sunlight to protect the remote control.

- 1 Choose a safe and easily-accessible place.

- 2 Fix the holder by fastening the 2 screws firmly with a screwdriver.

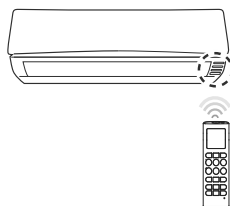


- 3 Slide the remote control into the holder.



Operating method

Point the remote control towards the signal receiver at the bottom of the air conditioner to operate it.






! NOTE

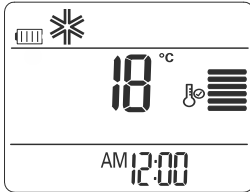
- The remote control may operate other electronic devices if pointed towards them. Make sure to point the remote control towards the signal receiver of the air conditioner.
- For proper operation, use a soft cloth to clean the signal transmitter and receiver.



BASIC FUNCTIONS

Cooling your room

(Cooling operation)




- 1 Press  to turn on the power.
- 2 Press  repeatedly to select the cooling operation.
-  is displayed on the display screen.

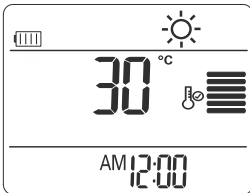




- 3 Press  or  to set the desired temperature.
- The temperature range is 18°C - 30°C

Heating your room

(Heating operation)

- 1 Press  to turn on the power.
- 2 Press  repeatedly to select the heating operation.
-  is displayed on the display screen.






- 3 Press  or  to set the desired temperature.
- The temperature range is 16°C - 30°C

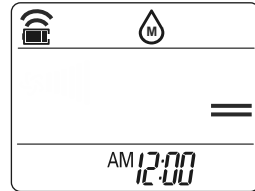
! NOTE

Cooling-only models do not support this function.




Removing humidity (Cooling Mode Only) (Monsoon operation)

This mode removes excess moisture from environment with high humidity or in the rainy season, in order to prevent mold from setting in. This mode adjusts the room temperature and the fan speed automatically to maintain the optimal level of humidity.

- 1 Press  to turn on the power.
- 2 Press  to select the monsoon operation.
-  is displayed on the display screen.






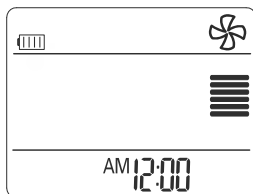
! NOTE

- In this mode you cannot adjust the room temperature, as it is adjusted automatically. Also, the room temperature is not displayed on the display screen.
- In this mode indoor unit fan and outdoor unit will be OFF intermittently.
- To Exit from Monsoon mode press  key or  key or  key

Airing your room (Air Circulation operation)



This mode only circulates the indoor air without changing the room temperature.

- 1 Press  to turn on the power.
- 2 Fan button : Press  turn on the air circulation operation.
-  is displayed on the display screen.




- 3 Press  to adjust the fan speed.

Adjusting the fan speed



- 1 Press  repeatedly to adjust the fan speed.
- Select  if you want natural air.
The fan speed adjusts automatically.

Natural wind (CHAOS Logic)



For fresher feeling, press the INDOOR FAN SPEED SELECTION BUTTON and set to Natural wind mode().

In this mode, the wind blows like a natural breeze by automatically changing fan speed.

Adjusting the air flow direction

- 1 To adjust the direction of the flow vertically, press  change the air flow direction automatically.
- This function is apply for only turn air deflector turn ON/OFF.
- 2 To adjust the direction of the flow horizontally, press  change the air flow direction automatically.
- This function is apply for only turn air deflector turn ON/OFF.


! NOTE

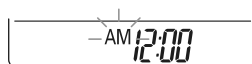
- Adjusting the air flow direction horizontally may not be supported, depending on the model.
- Adjusting the air deflector arbitrarily may effect product performance.
- If you restart the air conditioner, it starts to operate with the previously set direction of air flow, so the air deflector may not match the icon displayed on the remote control. When this occurs, press  or  to adjust the direction of the air flow again.

Setting the Timer

You can use the timer function to save energy and to use the air conditioner more efficiently.

Setting the current time

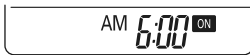
- 1 Press  and hold it for longer than 3 seconds.
- The AM/PM icon flickers at the bottom of the display screen.



- 2 Press or to select desired time.
- 3 Press to finish.

Turning on the air conditioner automatically at a set time

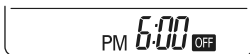
- 1 Press
 - The icon below flickers at the bottom of the display screen.



- 2 Press or to select desired time.
- 3 Press to finish.
- 4 When setting the timer, current time and ON icon are displayed on the display screen indicating that the ON TIMER is set.

Turning off the air conditioner automatically at a set time

- 1 Press
 - The icon below flickers at the bottom of the display screen.



- 2 Press or to select desired time.
- 3 Press to finish.
- 4 When setting the timer, current time and OFF icon are displayed on the display screen indicating that the OFF TIMER is set.

! NOTE

- This function may not be supported, depending on the model.
- This mode does not have auto restart feature.

Canceling the timer setting

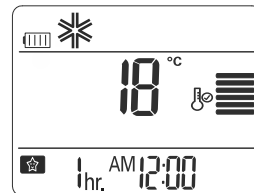
- 1 Press or to select the timer setting to cancel.
- 2 Press
 - To cancel all timer settings, press (The timer lamp on the air conditioner and the remote symbol will go off).

Setting sleep mode

Use the sleep mode to turn off the air conditioner automatically when you go to sleep.

The fan speed is set to low in sleep mode.

- 1 Press to turn on the power.
- 2 Press .
- 3 Press or to select the hour (up to 7 hours).
- 4 Press to finish.
 - is displayed on the display screen in sleep mode.



! NOTE

- The sleep mode will operate indoor fan at super low speed in cooling mode and at low speed in heating mode for pleasant sleep
- In cooling mode or Monsoon mode :**
The setting temperature will rise automatically two times by 1°C over next consecutive 30 minutes (Maximum 2°C) for a comfortable sleep.
This will be the final setting temperature as long as sleep mode is functioning.
After completion of set time unit will switch OFF automatically.


ADVANCED FUNCTIONS

The air conditioner offers some additional advanced functions.

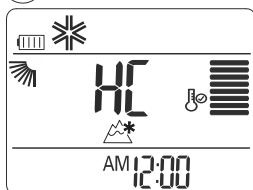
Changing room temperature quickly

H'COOL Mode

This mode allows you to cool indoor air quickly in summer

1 Press  to turn on the power.

2 Press .



-In H'COOL mode, 30 minutes strong focused air blows out for faster cooling.


NOTE


- In Air Circulation, Auto, or Auto Changeover mode, this function cannot be used.
- During & after H'COOL mode swing function will be ON by default.
- To OFF swing function Press respective swing key.
- This function may not be supported, depending on the model.
- This mode does not have auto restart feature.


Indoor air purification

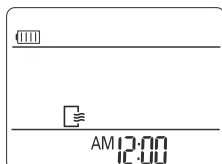
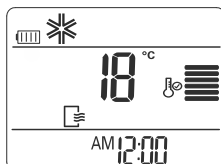
Auto Clean operation

In the cooling and monsoon operations, moisture is generated inside the indoor unit. Use the auto cleaning function to remove such moisture.

1 Press  to turn on the power.

2 Press .

-  is displayed on the display screen.



- If you turn off the power, the fan operates for 30 minutes and cleans the inside of the indoor unit.

NOTE

Some buttons cannot be used while the auto cleaning function is in operation.

NOTE

During Auto Clean function, "Co" will be displayed on the unit.

NOTE


Power saving lamp blink depending on the model.


Energy saving cooling mode


This mode minimizes power consumption during cooling and increases the set temperature to the optimal level for a more comfortable environment.


The temperature automatically sets at 22°C if ambient temperature is below 22°C.

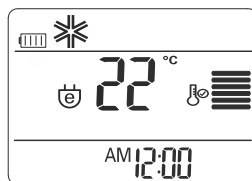
The temperature maintains if ambient temperature is above 22°C

1 Press  to turn the power on.

2 Press  repeatedly to select the cooling operation.

3 Press .

-  is displayed on the display screen.



NOTE

This function may not be supported, depending on the model. In Energy Saving Cooling Mode, temperature on the display of the remote controller and air conditioner can be different.





NOTE

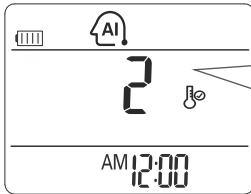
- This function may not be supported, depending on the model.
- This mode does not have auto restart feature.

Auto operation (Optional) (Artificial intelligence)

Cooling-only models

In this mode, the fan speed and the temperature adjust automatically, based on the room temperature.

- 1 Press  to turn on the power.
- 2 Press  repeatedly to select auto operation.
- 3 Press  or  to select the desired operation code if the temperature is higher or lower than the desired temperature.





| Code | Description |
|------|---------------------------|
| 2 | Cool |
| 1 | Cool slightly |
| 0 | Maintain room temperature |
| -1 | Heat slightly |
| -2 | Heat |

NOTE


- In this mode, you cannot adjust the fan speed, but you can set the air deflector to rotate automatically.
- This function may not be supported, depending on the model.

Dimmer (Optional)

In Dimmer Mode Unit Display will be turned OFF completely but system will be in running state.

1. Make sure that remote & Air conditioner are ON.
2. Press  () to activate/deactivate dimmer function.

NOTE

Dimmer Mode will be cancelled if any key except  is pressed (Power Key will turn OFF the Unit).




NOTE

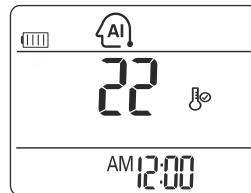
This function may not be supported by Auto Restart feature (depending on selected models.)




Auto Changeover (Optional)

Heat pump models

This operation is basically heating or cooling function of the air conditioner. But during this operation the controller change the operation mode automatically to keep the temperature within $\pm 2^{\circ}\text{C}$ with respect to the setting temperature.

- 1 Press  to turn ON the power.
 - 2 Press  repeatedly to select auto operation.
-  is displayed on the display screen.



- 3 Press  or  to set the desired temperature.
 - The temperature range is 18°C - 30°C
- 4 Press  repeatedly to select the fan speed.

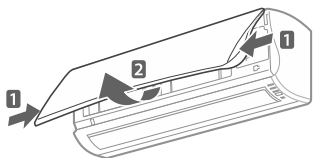
NOTE

- This function may not be supported, depending on the model.

Operating the air conditioner without the remote control (Forced Operation)

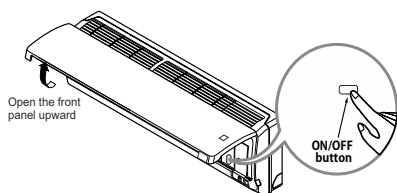
You can use the ON/OFF button of the indoor unit to operate the air conditioner when the remote control is unavailable. However, the fan speed is set to high.

- 1 Open the front cover.
 - Lift up both sides of the cover slightly.



* The feature can be changed according to the type of model.

- 2 Press the ON/OFF button.



* The feature can be changed according to the type of model.

- For cooling and heating models, the operation mode changes, depending on the room temperature.

| Room temp. | Set temp. | Operation mode |
|---------------------------|-----------|-------------------------|
| Below 21°C | 24°C | Heating operation* |
| Above 21°C and below 24°C | 23°C | Dehumidifying operation |
| Above 24°C | 22°C | Cooling operation |

- For cooling-only models, the temperature is set to 22°C

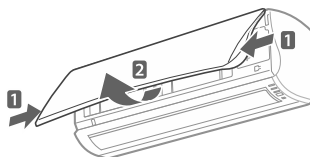
* This function may not be supported, depending on the model.

Restarting the air conditioner automatically

When the air conditioner is turned on again after a power failure, this function restores the previous settings. This function is a factory default setting.

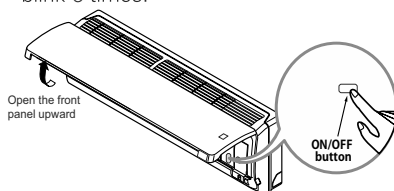
Disabling auto restart (Optional)

- 1 Open the front cover.
 - Lift up both sides of the cover slightly.



* The feature can be changed according to the type of model.

- 2 Press the ON/OFF button and hold it for 6 seconds.
 - The unit will beep twice and the lamp will blink 8 times.



* The feature can be changed according to the type of model.

- To re-enable the function, press the ON/OFF button and hold it for 6 seconds. The unit will beep twice and the lamp will blink 4 times.

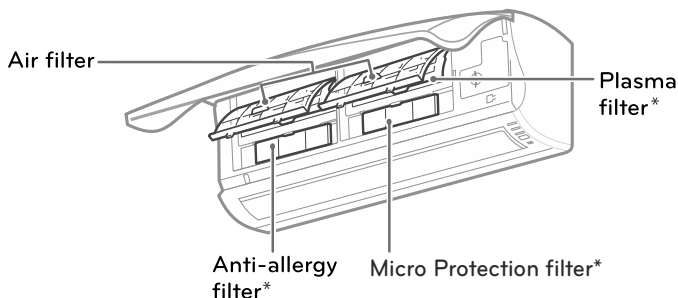
! NOTE

If you press and hold the ON/OFF button for 3~ 5 seconds instead of 6 seconds, the unit will switch to the test operation. In the test operation, the unit blows out strong air for cooling for 18 minutes and then returns to the factory default settings.

MAINTENANCE

Clean the product regularly to maintain optimal performance and to prevent possible breakdown.

* This may not be provided, depending on the model.



| Item | Cleaning interval | Cleaning method |
|--------------------------|-------------------|--|
| Air filter | 2 weeks | See "Cleaning air filter." |
| Anti-allergy filter* | 3 months | See "Cleaning anti-allergy filter." |
| Plasma filter* | 3 months | See "Cleaning the plasma filter." |
| Micro Protection filter* | 1 month | See "Cleaning the Micro Protection filter." |
| Indoor unit surface | Regularly | Use a soft, dry cloth. Do not use bleach or abrasives. |
| Outdoor unit | Regularly | Use steam to clean the heat exchanger coils and the panel vents (consult with technician). |

CAUTION

- Turn off the power and unplug the power cord before you perform any maintenance; otherwise it may cause electric shock.
- Never use water that is hotter than 40°C when you clean the filters. It may cause deformation or discoloration.
- Never use volatile substances when you clean the filters. They may damage the surface of the product.

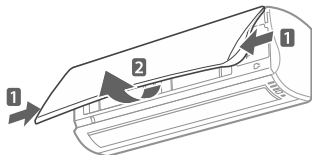
NOTE

- The location and shape of the filters may differ, depending on the model.
- Make sure to clean the heat exchanger coils of the outdoor unit regularly, as dirt collected in the coils may decrease the operational efficiency or increase energy costs.

Cleaning the air filter

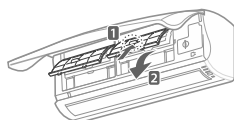
Clean the air filter once every 2 weeks or more if necessary.

- 1 Turn off the power and unplug the power cord.
- 2 Open the front cover.
 - Lift up both sides of the cover slightly.



* The feature can be changed according to the type of model.

- 3 Hold the knob of the air filter, lift it up slightly and remove it from the unit.



Caution :



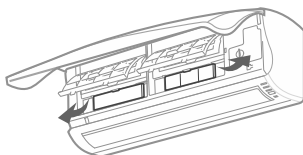
Do not press
the mesh

* The feature can be changed according to the type of model.

- 4 Clean the filter with a vacuum cleaner or with warm water.
 - If dirt is difficult to remove, wash the filter in lukewarm water with detergent.
- 5 Dry the filter in the shade.

Cleaning the anti-allergy filter

- 1 Turn off the power and unplug the power cord.
- 2 Open the front cover and remove the air filter (see "Cleaning air filter").
- 3 Pull out the anti-allergy filter.



* The feature can be changed according to the type of model.

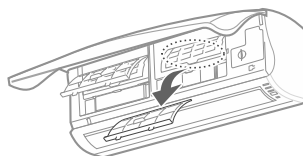
- 4 Dry the filter in direct sunlight for 2 hours.

! NOTE

The location and shape of the filters may differ, depending on the model.

Cleaning the plasma (+HAF) filter (Optional)

- 1 Turn off the power and unplug the power cord.
- 2 Open the front cover and remove the air filter (see "Cleaning air filter").
- 3 Remove the plasma (+HAF) filter after 10 seconds.



* The feature can be changed according to the type of model.

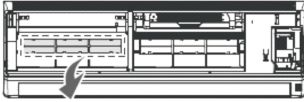
- 4 Use a vacuum cleaner to remove any dirt.
 - If dirt is difficult to remove, wash the filter with lukewarm water.
- 5 Dry the filter in the shade.

! NOTE

- The location of the filters may differ, depending on the model.
- The plasma filter may not be included in some models.

Cleaning the Micro Protection Filter (Optional)

- 1 Turn off the power and unplug the power cord.
- 2 Open the front cover and remove the air filter (see "Cleaning air filter").
- 3 Remove the Micro Protection Filter.



- 4 Use a vacuum cleaner to remove dirt,
 - Do not wash the Micro Protection Filter with water because the filter can be damaged.
- 5 Dry the filter in the shade.

NOTE

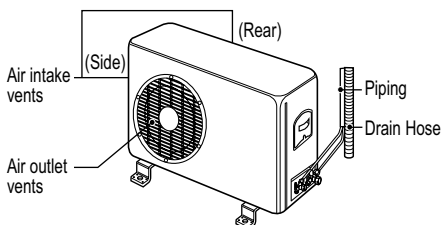
- We suggest changing the Micro Protection Filter every 6 months.
- The location of the filters may differ, depending on the model.
- For more filters, Please contact the LG service center.
- The feature can be changed according to type of model.

Outdoor Unit

The heat exchanger coils and panel vents of the outdoor unit should be checked regularly. If clogged with dirt or soot, the heat exchanger and panel vents may be professionally steam cleaned.

NOTE

Dirty or clogged coils will reduce the operating efficiency of the system and cause higher operating costs.



TROUBLESHOOTING

Self-diagnosis function

This product has a built-in self-diagnosis function. If an error occurs, the lamp of the indoor unit will blink in 2 second intervals. If this occurs, contact your local dealer or service center.

Before requesting service

Please check the following before you contact the service center. If the problem persists, contact your local service center.

| Problem | Possible causes | Corrective action |
|--|--|---|
| There is a burning smell and a strange sound coming from the unit. | - | Turn OFF the air conditioner, unplug the power cord and contact the service center. |
| Water leaks from the indoor unit even when the humidity level is low. | | |
| The power cord is damaged or generating excessive heat. | | |
| A switch, a circuit breaker (safety, ground) or a fuse is not operated properly. | | |
| The air conditioner does not work. | The air conditioner is unplugged. | Check whether the power cord is plugged into the outlet. |
| | A fuse is blown or the power supply is blocked. | Replace the fuse or check if the circuit breaker has tripped. |
| | A power failure has occurred. | Turn OFF the air conditioner when a power failure occurs. When the power is restored, wait 3 minutes, and then turn on the air conditioner. |
| | The voltage is too high or too low. | Check if the circuit breaker has tripped. |
| | The air conditioner turned OFF automatically at a preset time. | Press the power button again. |

| Problem | Possible causes | Corrective action |
|---|---|---|
| The air conditioner does not generate cool air. | Air is not circulating properly. | Make sure that there are no curtains, blinds or furniture blocking the front of the air conditioner. |
| | The air filter is dirty. | Clean the air filter once every 2 weeks. See "Cleaning Air Filter" for more information. |
| | The room temperature is too high. | In summer, it may take some time to cool indoor air. In this case, select the H'COOL operation to cool indoor air quickly. |
| | Cold air is escaping from the room. | Make sure that no cold air is escaping through ventilation points in the room. |
| | The desired temperature is higher than the set temperature. | Set the desired temperature to a level lower than the current temperature. |
| | There is a heating source nearby. | Avoid using a heat generator such as an electric oven or a gas burner while the air conditioner is in operation. |
| | Air circulation operation is selected. | In the air circulation operation, air blows from the air conditioner without cooling or heating the indoor air. Switch the operation mode to the cooling operation. |
| It is not possible to adjust the fan speed. | The auto operation, H'COOL operation or dehumidification operation is selected. | In some operation modes, such as the H'COOL or dehumidification operation modes, you cannot adjust the fan speed. Select an operation mode in which you can adjust the fan speed. |
| It is not possible to adjust the temperature. | The air circulation or H'COOL operation is selected. | In some operation modes, such as the air circulation or H'COOL mode, you cannot adjust the temperature. Select an operation mode in which you can adjust the temperature. |

When the air conditioner is not going to be used for a long time.

When air conditioner is not going to be used for a long time.

1 Operate the air conditioner on Air circulation mode for 2 to 3 hours.

2 Turn off the circuit breaker, and disconnect the plug.



CAUTION

Turn off the circuit breaker when the air conditioner is not going to be used for a long time.
Dirt may collect and may cause fire.

3 Remove the batteries from the remote control.

When the air conditioner is to be used again.

1 Clean the air filter and install it in the indoor unit.

2 Check that the air inlet and outlet of the indoor/outdoor unit are not blocked.



Installation guide at the sea-

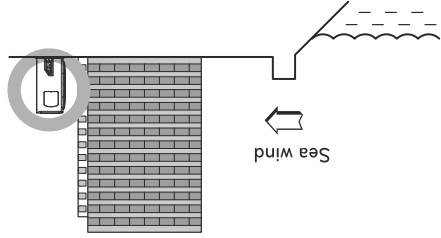
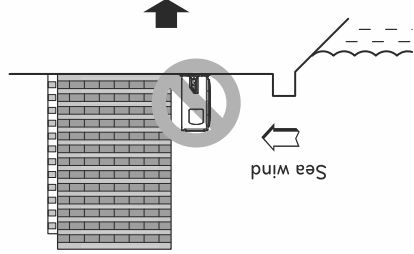
side



- Air conditioners should not be installed in areas where corrosive gases, such as acid or alkaline gas, are produced.
- Do not install the product where it could be exposed to sea wind (salty wind) directly. It can result corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient performance.
- If outdoor unit is installed close to the seaside, it should avoid direct exposure to the sea wind. Otherwise it needs additional anticorrosion treatment on the heat exchanger.

Selecting the location(Outdoor Unit)

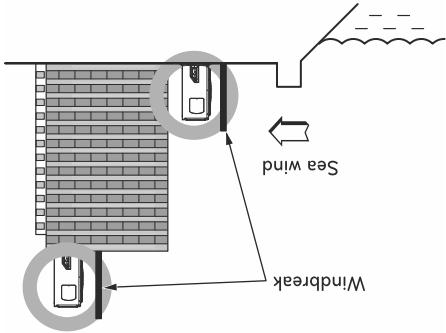
If the outdoor unit is to be installed close to the seaside, direct exposure to the sea wind should be avoided. Install the outdoor unit on the opposite side of the sea wind direction.



In case, to install the outdoor unit on the sea-side, set up a windbreak so that outdoor unit not exposed to the sea wind.

Select a well-drained place.

- It should be strong enough like concrete to prevent the sea wind from the sea.
- The height and width should be more than 150% of the outdoor unit.
- More than 700mm of space should be kept between outdoor unit and windbreak for easy air flow.



- If you can't meet above guide line in the seaside installation, please contact LG Electronics for the additional anticorrosion.
- Periodic (more than once/year) cleaning of the dust or salt particles stuck on the heat exchanger by using water
- * Do not use sea water when you clean up the heat exchanger.

Pump down

This is performed when the unit is relocated or the refrigerant circuit is serviced. Pump Down means collecting all refrigerant into the outdoor unit without the loss of refrigerant.

CAUTION

Be sure to perform Pump Down procedure in the cooling mode.

Pump Down Procedure

- Connect a low-pressure gauge manifold hose to the charge port on the gas side service valve.

- Open the gas side service valve halfway and purge the air in the manifold hose using the refrigerant.

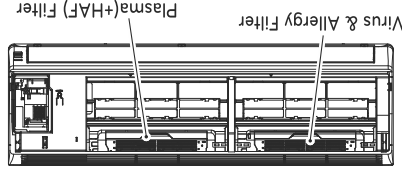
- Close the liquid side service valve(all the way).

- Turn on the unit's operating switch and start the cooling operation.

- When the low-pressure gauge reading becomes 1 to 0.5kg/cm² G(14.2 to 7.1 P.S.I.G.), fully close the gas side valve and then quickly turn off the unit. Now Pump Down procedure is completed, and all refrigerant is collected into the outdoor unit.

Installation of Filters

- 1 Pull out the allergy free filter from the separately packed plastic bag.
- 2 Insert the allergy free filter into the right case.
- 3 Detach two nitto tapes from the plasma filter.



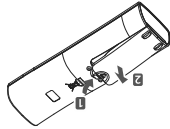
* The feature can be changed according to the type of model.

Test Running

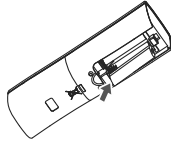
- Check that all tubing and wiring are properly connected.
- Check that the gas and liquid side service valves are fully open.

Prepare remote controller

- 1 Remove the battery cover.
Insert batteries before using the remote control. The battery type used is AAA (1.5 V).



- 2 Insert the new batteries and make sure that the + and - terminals of the batteries are installed correctly.



- 3 Reattach the battery cover.

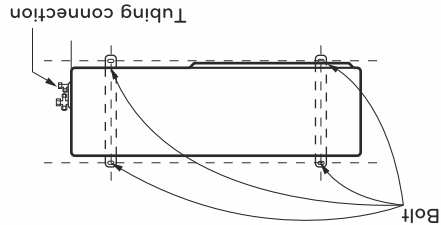
NOTE

- Use 2 AAA(1.5volt) batteries. Do not use rechargeable batteries.
- Remove the batteries from the remote controller if the system is not used for a long time

- Re-place the valve caps at both gas and liquid side service valves and fasten them tight. This completes air purging with a vacuum pump.
- Replace the pipe cover to the outdoor unit by one screw
- Now the air conditioner is ready for test run.
- * The feature can be changed according a type of model.

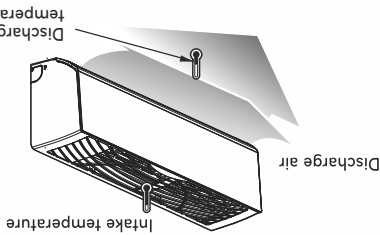
Settlement of outdoor unit

- Fix the outdoor unit with a bolt and nut($\phi 10\text{mm}$) tightly and horizontally on a concrete or rigid mount.
- When installing on the wall, roof or rooftop, anchor the mounting base securely with a nail or wire assuming the influence of wind and earthquake.
- If the vibration of the unit is transmitted to the pipe, secure the pipe with an anti-vibration rubber.



Evaluation of the performance

- Operate the unit for 15~20 minutes, then check the system refrigerant charge;
 - Measure the pressure of the gas side service valve.
 - Measure the air temperature from inlet and outlet of air conditioner.
 - Ensure the difference between the inlet and outlet temperature is more than 8°C.
 - For reference; the gas side pressure at optimum condition is shown on table (cooling)
- The air conditioner is now ready to use.



* The feature can be changed according to the type of model.

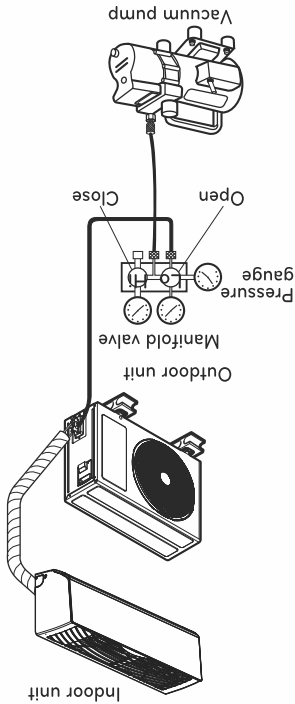
| Refrigerant | Outside ambient TEMP. | The pressure of the gas side |
|-------------|-----------------------|---|
| R-22 | 35°C(95°F) | 4~5kg/cm ² (56.8~71.0 P.S.I.G.) |
| R-410A | 35°C(95°F) | 8.5~9.5kg/cm ² (120~135 P.S.I.G.) |

NOTE

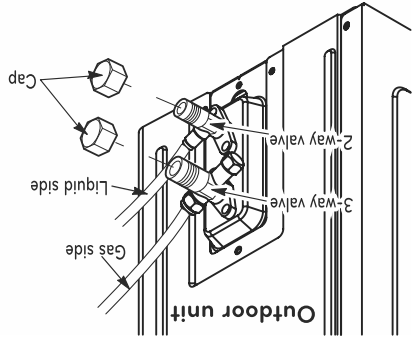
If the actual pressure is higher than shown, the system is most likely over-charged, and charge should be removed. If the actual pressure are lower than shown, the system is most likely under-charged, and charge should be added.

Finishing the Job

- With a service valve wrench, turn the valve of liquid side counter-clockwise to fully open the valve
- Turn the valve of gas side counter - clockwise to fully open the valve
- Loosen the charge hose connected to the gas side service port slightly to release the pressure, then remove the hose.
- Replace the flare nut and its bonnet on the gas side service port and fasten the flare nut securely with an adjustable wrench. This process is very important to prevent leakage from the system.



- Connect the charge hose end described in the preceding steps to the vacuum pump to evacuate the tubing and indoor unit.
- Confirm the "Lo" knob of the pressure Gauge is open. Then, run the vacuum pump.
- The operation time for evacuation varies with tubing length and capacity of the pump. The following table shows the time required for vacuum.



| | |
|--|-----------------|
| Required time for vacuum when 30 gal/h vacuum pump is used | |
| If tubing length is longer than 10m (33 ft) | 10 min. or more |
| 15 min. or more | |

- When the desired vacuum is reached, close the knob of the 3-way valve and stop the vacuum pump.

Air purging with vacuum pump

- Preparation

Check that each tube(both liquid and gas side tubes) between the indoor and outdoor units have been properly connected and all wiring for the test run has been completed. Remove the service valve caps from both the gas and the liquid side on the outdoor unit. Note that both the liquid and the gas side service valves on the outdoor unit are kept closed at this stage.

- Leak test

Connect the manifold valve(with pressure gauges) and dry nitrogen gas cylinder to this service port with charge hoses.

CAUTION

Be sure to use a manifold valve for air purging. If it is not available, use a stop valve for this purpose. The knob of the 3-way valve must always be kept close.

- Pressurize the system to maximum 250 P.S.I.G. (R-22 model) or 400 P.S.I.G. (R-410A model) with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 250 P.S.I.G. (R-22 model) or 400 P.S.I.G. (R-410A model).

Next step is leak test with liquid soap.

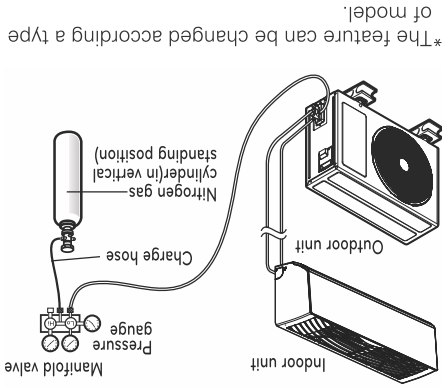
CAUTION

To avoid nitrogen entering the refrigerant system in a liquid state, the top of the cylinder must be higher than its bottom when you pressurize the system. Usually, the cylinder is used in a vertical standing position.

WARNING

- There is a risk of fire and explosion.
- Inert gas (nitrogen) should be used when you check plumbing leaks, cleaning or repairs of pipes etc.
- If you are using combustible gases including oxygen, product may have the risk of fires and explosions.

Soap water method

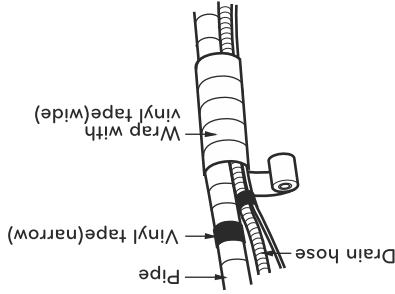


*The feature can be changed according a type of model.

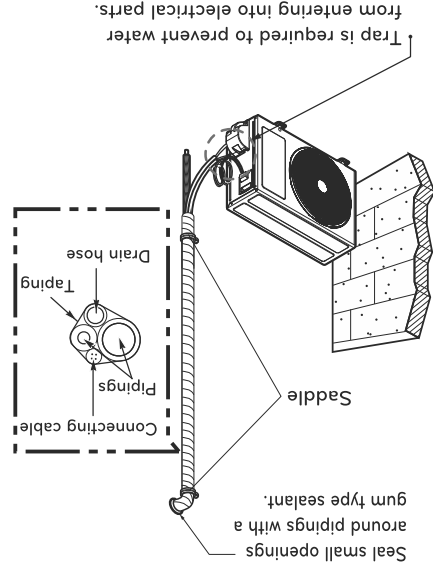
- Remove the caps from the 2-way and 3-way valves.
- Remove the service-port cap from the 3-way valve.
- Apply a soap water or a liquid neutral detergent on the indoor unit connection or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping.
- If bubbles come out, the pipes have leakage.

Forming of the Piping

Form the piping by wrapping the connecting portion of the indoor unit with insulation material and secure it with two kinds of vinyl tapes. - If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. ensure the drain hose appropriately.



- 1 Tape the piping and connecting cable from down to up.
- 2 Secure the tapped piping along the exterior wall using saddle or equivalent..

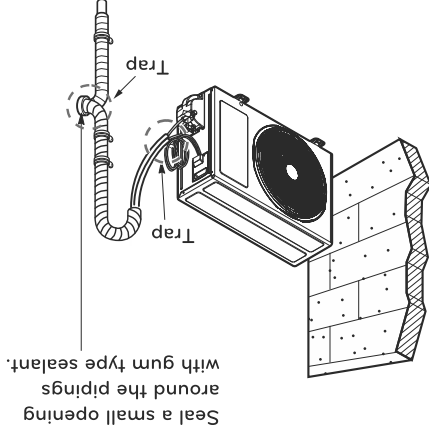


Air Purging

The air and moisture remaining in the refrigerant system have undesirable effects as indicated below.

- Pressure in the system rises.
- Operating current rises.
- Cooling (or heating) efficiency drops.
- Moisture in the refrigerant circuit may freeze and block capillary tubing.
- Water may lead to corrosion of parts in the refrigeration system.

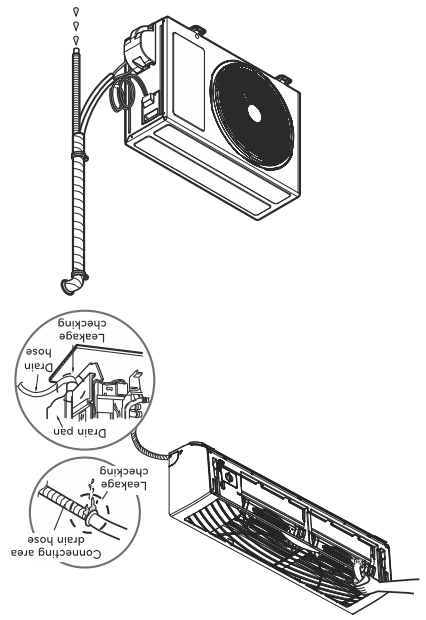
Therefore, after evacuating the system, take a leak test for the piping and tubing between the indoor and outdoor unit.



- 1 Tape the piping and connecting cable from above the indoor unit, perform the following:
- 2 Secure the taped piping along the exterior wall. Form a trap to prevent water entering the room.
- 3 Fix the piping on to the wall using saddle or equivalent

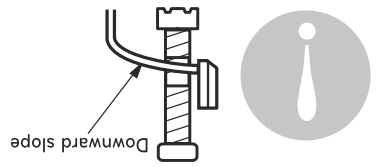
Checking the Drainage

- 1 Pour a glass of water on the evaporator.
- 2 Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

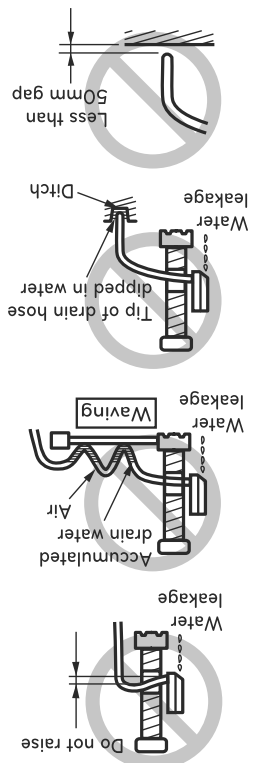


Drain piping

- 1 The drain hose should point downward for easy drain flow.



- 2 Do not set the drain hose like the following.

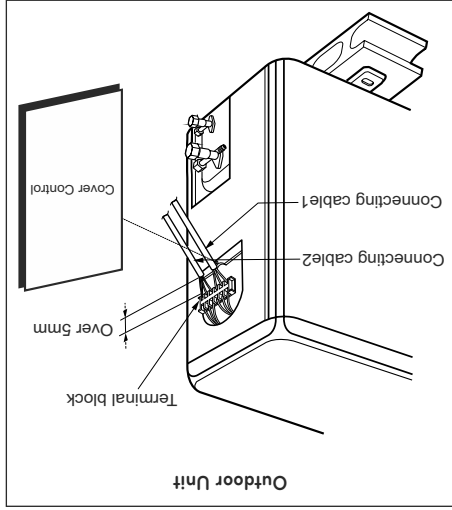


* The feature can be changed according to the type of model.

CONNECTING THE CABLE BETWEEN INDOOR & OUTDOOR UNIT

Connect the cable to the outdoor unit

- A** Remove the control cover from the unit by loosening the screw.
Connect the wires to the terminals on the control board individually.
- B** Secure the cable on to the control board with the cord clamp.
- C** Refix the control cover to the original position with the screw.
- D** Use a recognized circuit breaker 20A (12K,18K), 25A (24K, 26K) between the power source and the unit. A disconnecting device to adequately disconnect all supply lines must be fitted.



Connecting Cable 1 each (Cooling only)
Connecting Cable 2 each (Heat pump only)

CAUTION

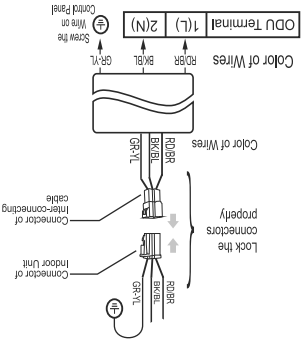
- After the confirmation of the above conditions, prepare the wiring as follows:
- 1) Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, be guided by the circuit diagram pasted on the inside of control cover.
 - 2) The screw which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could cause burn-out of the wires.)
 - 3) Specification of power source.
 - 4) Confirm that electrical capability is sufficient.
 - 5) The starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
 - 6) Confirm that the cable thickness is as specified in the power source specification. (Particularly note the relation between cable length and thickness. (Refer to page 16))
 - 7) Always install an earth leakage circuit breaker in a wet or moist area.
 - 8) The following would be caused by voltage drop.
 *Vibration of a magnetic switch, which will damage the contact point, fuse breaking, disturbance of the normal function of the overload.
 - 9) The means for disconnection from a power supply shall be incorporated in the fixed wiring and have an air gap contact separation of at least 3mm in each active(phase) conductors.

CONNECTING THE CABLE BETWEEN INDOOR & OUTDOOR UNIT

Connect the cable from Indoor to outdoor unit.

- Connect the cable to the indoor unit by connecting the indoor and outdoor housing connector (male - female housing matching).
- outdoor unit connection.
- (Ensure that the color of the wires of the outdoor unit and the terminal no. are the same as those of the indoor unit.)

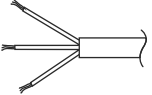
Cooling model (9K,12K,18K,24K)



CAUTION

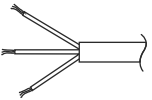
The power cord connected to the indoor unit should be with the following specifications

| | | | | |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|
| Capacity (Btu/h) | 9K, 12K | 18K | 24K | 26K |
| NORMAL CROSS-SECTIONAL AREA | 1.0mm ² | 1.5mm ² | 2.5mm ² | 2.5mm ² |



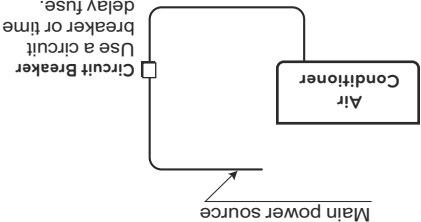
The inter connecting cable connected to the indoor and outdoor unit should be with the following specifications

| | | | |
|-----------------------------|--------------------|--------------------|--------------------|
| Capacity (Btu/h) | 9K, 12K | 18K, 24K | 26K |
| NORMAL CROSS-SECTIONAL AREA | 1.0mm ² | 2.5mm ² | 2.5mm ² |



CAUTION

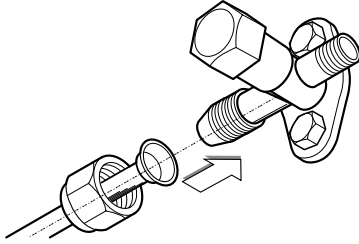
If a power plug is not to be used, provide a circuit breaker between power source and the unit as shown below.



FLARING WORK AND CONNECTION OF PIPING

Connection of the Pipes-Outdoor

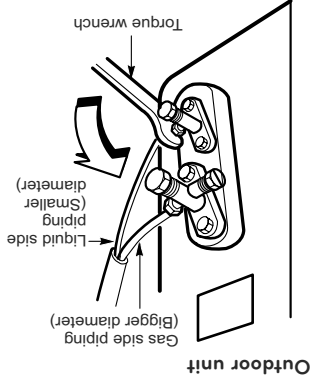
- A** Align the center of the pipings and sufficiently tighten the flare nut by hand.



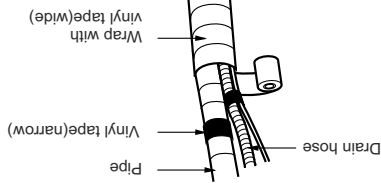
- B** Finally, tighten the flare nut with torque wrench until the wrench clicks.

■ When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.

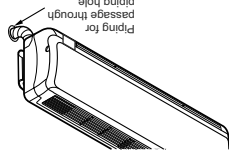
| Outside diameter | mm | inch | kgf.cm | N.m |
|------------------|-----|----------|-----------|-----|
| Ø19.05 | 3/4 | 990~1210 | 97~118.6 | |
| Ø15.88 | 5/8 | 630~820 | 61.7~80.4 | |
| Ø12.7 | 1/2 | 550~660 | 53.9~64.7 | |
| Ø9.52 | 3/8 | 340~420 | 33.3~41.2 | |
| Ø6.35 | 1/4 | 180~250 | 17.6~24.5 | |



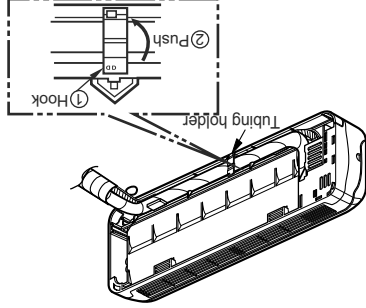
- Bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section.



- H** Reroute the pipings and the drain hose across the back of the chassis.

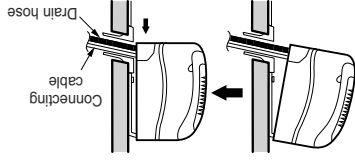


- I** Set the pipings and the drain hose to the back of the chassis with the tubing holder. Hook the edge of tubing holder to tap on chassis and push the bottom of tubing holder to be engaged at the bottom of chassis.



Indoor unit installation

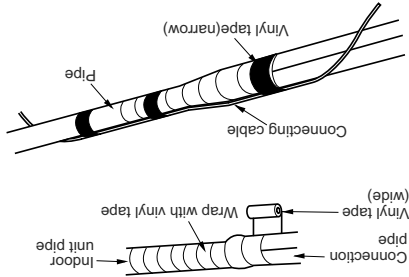
- Remove the spacer.
■ Ensure that the hooks are properly seated on the installation plate by moving it left and right.



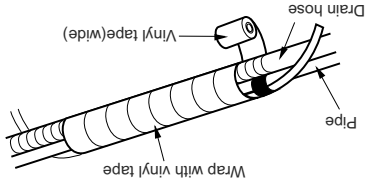
Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots(clicking sound).

FLARING WORK AND CONNECTION OF PIPING

- Wrap the area which accommodates the rear piping housing section with vinyl tape.

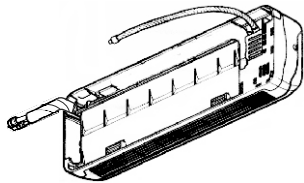


- Bundle the piping and drain hose together by wrapping them with vinyl tape over the range within which they fit into the rear piping housing section.

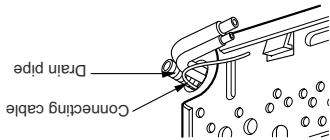


For right rear piping

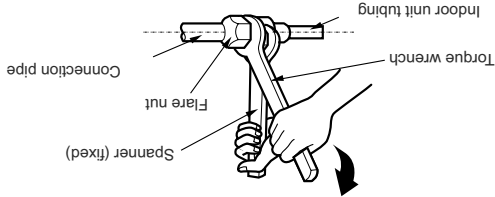
- A Route the indoor tubing and the drain hose to the required piping hole position.



- B Insert the piping, drain hose and the connecting cable into the piping hole.

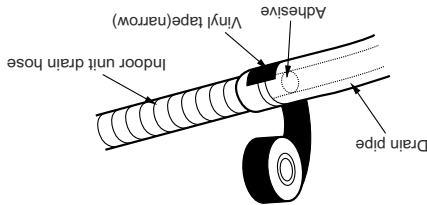


- Tighten the flare nut with a wrench.



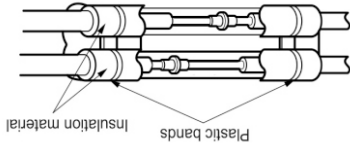
| Torque | | Outside diameter | |
|--------|------|------------------|-----------|
| mm | inch | kgf.cm | N.m |
| Ø6.35 | 1/4 | 180~250 | 17.6~24.5 |
| Ø9.52 | 3/8 | 340~420 | 33.3~41.2 |
| Ø12.7 | 1/2 | 550~660 | 53.9~64.7 |
| Ø15.88 | 5/8 | 630~820 | 61.7~80.4 |
| Ø19.05 | 3/4 | 990~1210 | 97~118.6 |

- When extending the drain hose at the indoor unit, install the drain pipe.



- F Wrap the insulation material around the connecting portion.

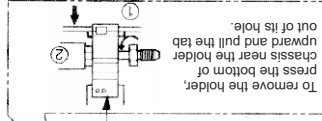
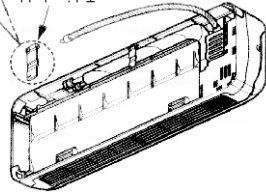
- Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there is no gap.



FLARING WORK AND CONNECTION OF PIPING

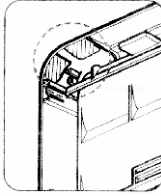
Indoor Connection of piping-

- Preparing the indoor unit's piping and drain hose for installation through the wall.
- Remove the plastic tubing retainer (see illustration below) and pull the tubing and drain hose away from chassis.
- Replace the plastic tubing holder in the original position.



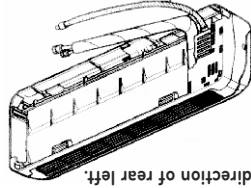
To remove the holder, press the bottom of chassis near the tab upward and pull the tab out of its hole.

CAUTION
When install, make sure that the remaining parts must be removed clearly so as not to damage the piping and drain hose, especially power cord and connecting cable.



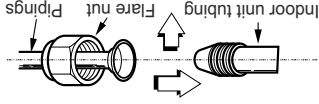
For left rear piping

- A** Route the indoor tubing and the drain hose in the direction of rear left.



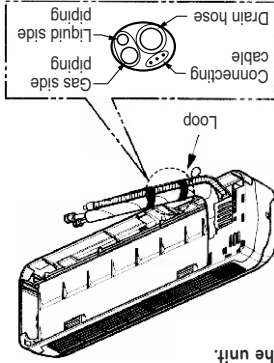
- B** Insert the connecting cable into the indoor unit from the outdoor unit through the piping hole.

- Do not connect the cable to the indoor unit.
- Make a small loop with the cable for easy connection later.



C

Tape the tubing, drain hose and the connecting cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.



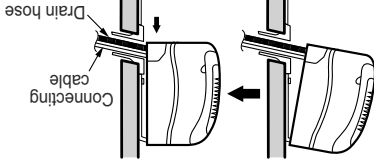
NOTE

If the drain hose is routed inside the room, insulate the hose with an insulation material so that dripping from "sweating"(condensation) will not damage furniture or floors.
*Foamed polyethylene or equivalent is recommended.

D

Indoor unit installation

- Hook the indoor unit onto the upper portion of the installation plate. (Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.) Ensure that the hooks are properly seated on the installation plate by moving it left and right

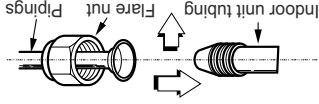


Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking-sound).

E

Connecting the pipings to the indoor unit and drain hose to drain pipe.

- Align the center of the pipings and sufficiently tighten the flare nut by hand.



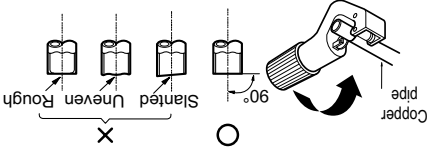
FLARING WORK AND CONNECTION OF PIPING

Flaring work

Main cause for gas leakage is due to defect in flaring work. Carry out correct flaring work in the following procedure.

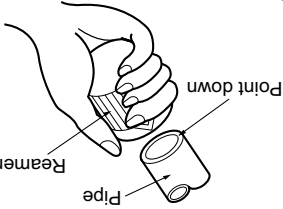
A Cut the pipes and the cable

- Use the piping kit accessory or the pipes purchased locally.
- Measure the distance between the indoor and the outdoor unit.
- Cut the pipes a little longer than measured distance.
- Cut the cable 1.5m longer than the pipe length.



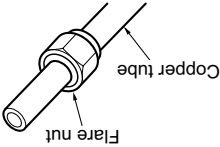
B Burrs removal

- Completely remove all burrs from the cut cross section of pipe/tube.
- Put the end of the copper tube/pipe in a downward direction as you remove burrs in order to avoid dropping burrs into the tubing.

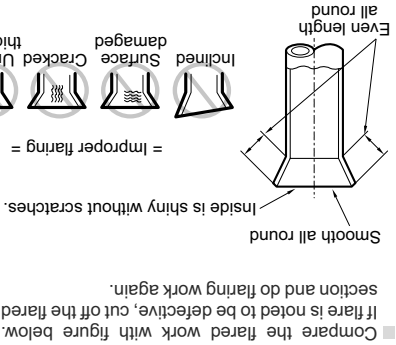


C Putting nut on

- Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.
- (not possible to put them on after flaring work)



E Check



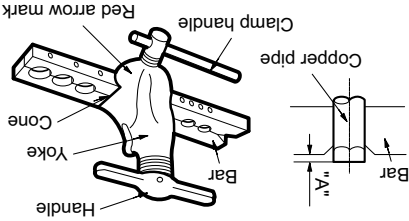
- Compare the flared work with figure below. If flare is noted to be defective, cut off the flared section and do flaring work again.

D Flaring work

- Carry out flaring work using flaring tool as shown below.

| Outside diameter | | Thickness | |
|------------------|------|-----------|-----|
| mm | inch | mm | mm |
| ø6.35 | 1/4" | 1.1~1.3 | 0.7 |
| ø9.52 | 3/8" | 1.5~1.7 | 0.8 |
| ø12.7 | 1/2" | 1.6~1.8 | 0.8 |
| ø15.88 | 5/8" | 1.6~1.8 | 1.0 |
| ø19.05 | 3/4" | 1.9~2.1 | 1.0 |

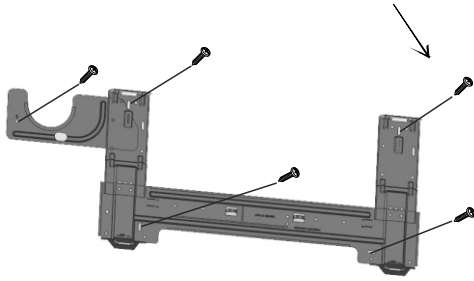
Firmly hold copper pipe in a die in the dimension shown in the table above.



Fixing Installation Plate

- 1 Before installation, confirm the position of screw and hole of installation plate
- The wall you select should be strong and solid enough to prevent vibration

- 2 Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.
- Mount the installation plate horizontally by aligning the centerline using Horizontal meter.

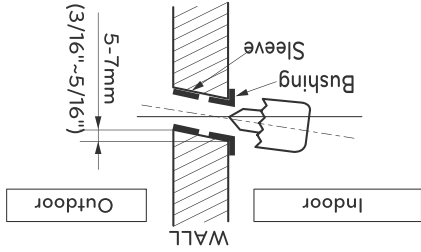


Type "A" Screw

- 3 Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

Drill a Hole in the Wall

- Drill the piping hole with a $\varnothing 70$ mm hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.

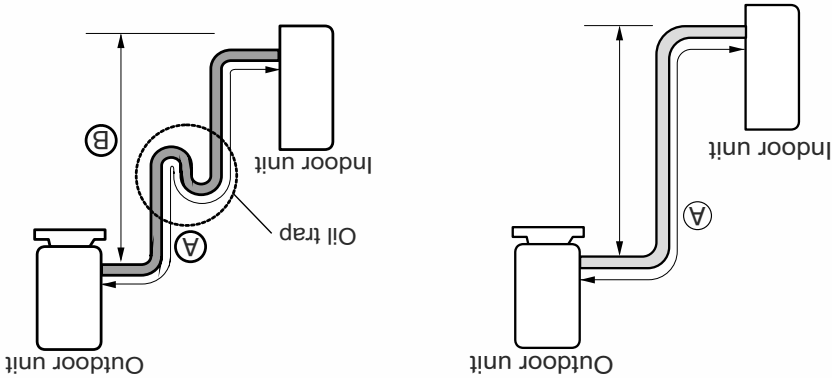


CAUTION

Use the sleeve to prevent damage for tube assembly.

Piping length and elevation

| Capacity (Btu/h) | Pipe Size | | Standard Length (m) | Max. length (A)(m) | Max. elevation (B)(m) | Additional Refrigerant (g/m) |
|---------------------|-----------|--------|---------------------------|--------------------------|-----------------------------|------------------------------------|
| | GAS | LIQUID | | | | |
| 9K | 3/8" | 1/4" | 5 | 15 | 7 | 20 |
| 12K, 18K | 1/2" | 1/4" | 5 | 15 | 7 | 20 |
| 24K Cooling | 5/8" | 1/4" | 5 | 15 | 7 | 30 |



In case more than 5m

CAUTION Capacity is based on standard length and maximum allowable length is on the basis of reliability. Additional refrigerant must be charged after 5.0 m.

Operation ranges

The table below indicates the temperature ranges the air conditioner can be Operated within.

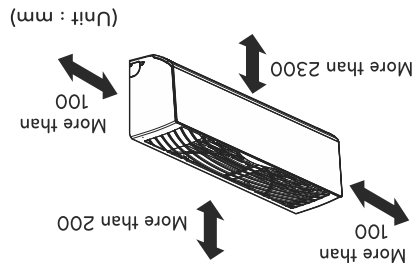
| Mode | Indoor temperature | Cooling |
|---------------------|--------------------|-------------|
| Outdoor temperature | 18°C ~ 30°C | 18°C ~ 48°C |

INSTALLATION

Select the best Location

Indoor unit

- There should not be any heat or steam near the unit.
- Select a place where there are no obstacles around the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the gap between a wall and the left (or right) of the unit is more than 100mm. The unit should be installed as high as possible on the wall, allowing a minimum of 200mm from ceiling.
- Use a metal detector to locate studs to prevent unnecessary damage to the wall.



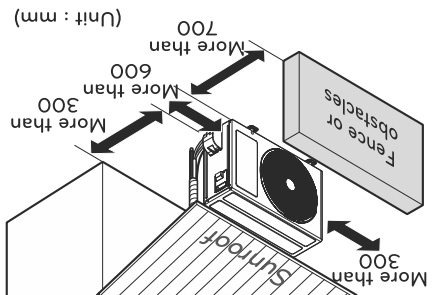
* The feature can be changed according to the type of model.

CAUTION

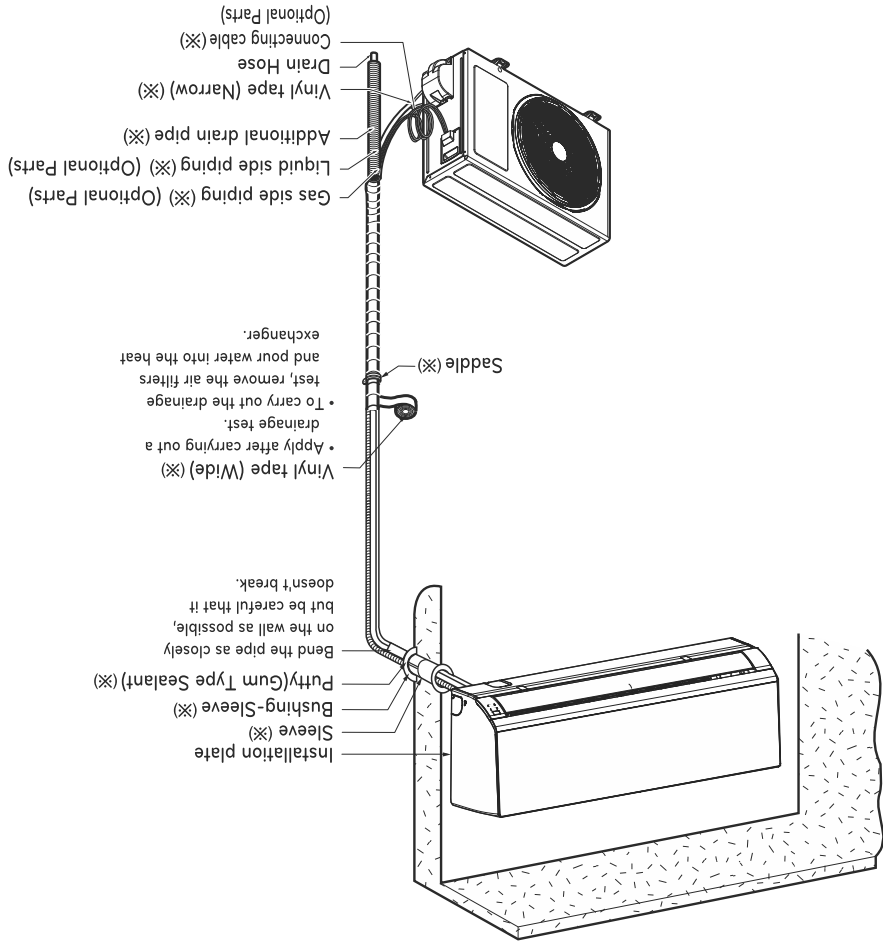
Install the indoor unit on the wall where the height from the floor is more than 2300mm.

Outdoor unit

- If an awning is built over the unit to prevent direct sunlight or rain exposure, make sure that heat radiation from the condenser is not restricted.
- Ensure that the space around the back side and other sides is more than 300mm. The space in front of the unit should be more than 700mm.
- Do not place animals and plants in the path of the warm air.
- Take the weight of the air conditioner into account and select a place where noise and vibration are minimum.
- Select a place where the warm air and noise from the air conditioner do not disturb neighbors.



INSTALLATION MAP

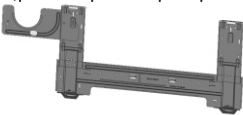


* The feature can be changed according to the type of model.

NOTE

(x) You should purchase the installation parts.

INSTALLATION PARTS

| Name | Quantity | Shape |
|-----------------------|----------|---|
| Installation plate | 1 EA |  The actual port can be changed according to the type of model. |
| Type "A" screw | 5 EA | |
| Type "B" screw | 2 EA | |
| Remote control holder | 1 EA | |

INSTALLATION TOOLS

| S.No. | Required Tools |
|-------|--|
| 1 | Level Gauge |
| 2 | Screw Driver |
| 3 | Electric Drill |
| 4 | Hole Core Drill (Dia-70mm) |
| 5 | Flaring Tool Set |
| 6 | Specified torque wrenches 1.8kg.m, 4.2kg.m, 5.5kg.m, 6.6kg.m (Different torque wrenches on model no.) |
| 7 | Spanner (Half Union) |
| 8 | Hexagonal Wrench |
| 9 | Gas-Leak Detector |
| 10 | Vacuum Pump |
| 11 | Gauge Manifold |
| 12 | Thermometer |

INTRODUCTION

Symbols used in this Manual



This symbol alerts you to the risk of electric shock.

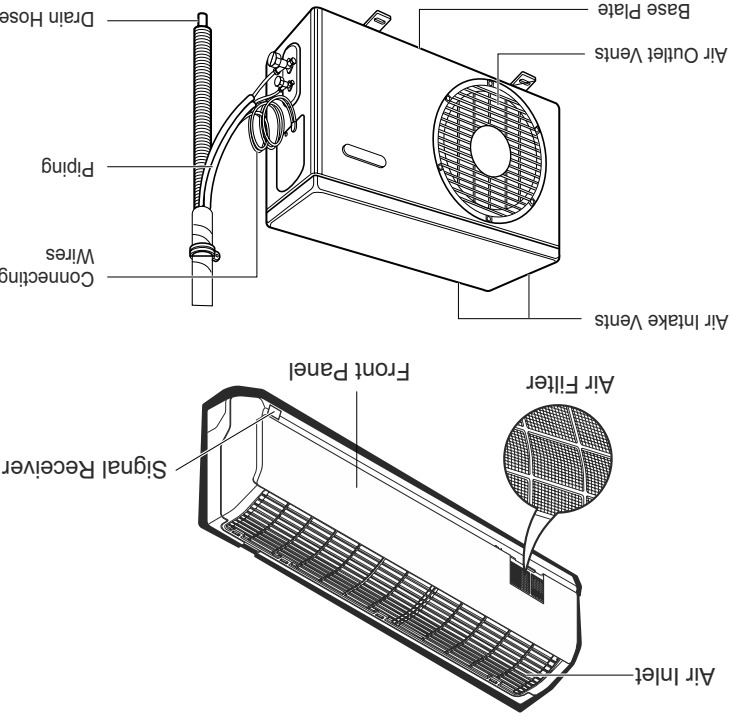


This symbol alerts you to hazards that may cause harm to the air conditioner.



NOTE This symbol indicates special notes.

Features



NOTE

Product look and picture are for reference only,
actual product may vary depending on model of the air conditioner.
* The feature can be changed according to the type of model.

- Do not use copper pipes having a collapsed.
- Otherwise the expansion valve or capillary tube may become blocked with contaminants.
- For R410A model, use piping, flare nut and tools which is specified for R410A refrigerant.
- Using of (R22) piping, flare nut and tools may cause abnormally high pressure in the refrigerant cycle (piping), and possibly result in explosion and injury.
- It is desirable that the amount of residual oil should be less than 40 mg/10 m.

Operation

- Do not share the electrical outlet with other appliances.
- It will cause an electric shock or fire due to heat generation.
- Do not use the damaged power cord.
- Otherwise it may cause fire or electrical shock.
- Do not modify or extend the power cord randomly.
- Otherwise it may cause fire or electrical shock.
- Take care so that the power cord may not be pulled during operation.
- -
- Unplug the unit if strange sounds, smell, or smoke comes from it.
- Otherwise it may cause fire or electrical shock.
- Keep the flames away.
- Otherwise it may cause fire.
- Take the power plug out if necessary, holding the head of the plug and do not touch plug with wet hands.
- Otherwise it may cause fire or electrical shock.
- Do not use the power cord near the heating equipments.
- Otherwise it may cause fire or electrical shock.
- Do not open the suction inlet of the indoor/outdoor unit during operation.
- Otherwise it may cause electrical shock and product failure.
- Do not allow water to run into electrical parts.
- Otherwise it may cause the failure of machine or electrical shock.
- Hold the plug by the head when taking it out.
- Otherwise it may cause electrical shock.
- Never touch the metal parts of the unit when removing the filter.
- They are sharp and may cause injury.
- Do not step on the indoor/outdoor unit and do not put anything on it.
- It may cause an injury through dropping of the unit or falling down.
- Do not place a heavy object on the power cord.
- Otherwise it may cause fire or electrical shock.
- When the product is submerged into water, always contact the service center.
- Otherwise it may cause fire or electrical shock.
- Take care so that children may not step on the outdoor unit.
- Otherwise children may be seriously injured due to falling down.



Installation

- Install the drain hose to ensure that drain can be securely done.
- Otherwise it may cause water leakage.
- Install the product so that the noise or hot wind from the outdoor unit may not cause any damage to the neighbors.
- Otherwise it may cause dispute with the neighbors.
- Always inspect gas leakage after the installation and repair of product.
- Otherwise it may cause the failure of product.
- Keep level parallel in installing the product.
- Otherwise it may cause vibration or water leakage.

Operation

- Avoid excessive cooling and perform ventilation sometimes.
- Otherwise it may do harm to your health.
- Use a soft cloth to clean. Do not use wax, thinner, or a strong detergent.
- The appearance of the air conditioner may deteriorate, change color, or develop surface flaws.
- Do not use an appliance for special purposes such as preserving animals vegetables, precision machine or art articles.
- Otherwise it may damage your properties.
- Do not place obstacles around the flow inlet or outlet.
- Otherwise it may cause the failure of appliance or an accident.

IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.



WARNING

It can result in serious injury or death when the directions are ignored.



CAUTION

It can result in minor injury or product damage when the directions are ignored.



WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- Air conditioner shall be installed in accordance with national wiring regulations.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid hazards.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

Installation

- Always perform grounding.
- Otherwise it may cause electrical shock.
- Don't use a power cord, a plug or a loose socket which is damaged.
- Otherwise it may cause fire or electrical shock.
- For installation of the product, always contact the service center or a professional installation agency.
- Otherwise it may cause fire, electrical shock, explosion or injury.
- Securely attach the electrical part cover to the indoor unit and the service panel to the outdoor unit.
- If the electrical part cover of the indoor unit and the service panel of the outdoor unit are not attached securely, it could result in fire, electric shock or product failure due to dust, water, etc.
- Always install an air leakage breaker and a dedicated switching board.
- No installation may cause fire or electrical shock.
- Do not keep or use flammable gases or combustibles near the air conditioner.
- Otherwise it may cause fire or the failure of product.
- Ensure that an installation frame of the outdoor unit is not damaged due to use for a long time.
- It may cause injury or an accident.
- Do not disassemble or repair the product randomly.
- It will cause fire or electrical shock.
- Do not install the product at a place where there is concern of falling down.
- Otherwise it may result in personal injury or product failure.
- Use caution when unpacking and installing.
- Sharp edges may cause injury.
- Thickness of copper pipes to be used are as shown in "Flaring work" Table.
- Never use copper pipes thinner than that mentioned in the table even when it is available in the market.

TIPS FOR SAVING ENERGY

Here are some tips which will help you to minimize the power consumption when you use the air conditioner. You can use the air conditioner more efficiently by referring the instructions given below:

- Avoid excessive cooling. This may be harmful for your health and may consume more electricity.
- Block sunlight with blinds or curtains while you are operating the air conditioner.
- Keep doors or windows closed tightly while you are operating the air conditioner.
- Adjust the direction of the air flow vertically or horizontally to circulate indoor air.
- Speed up the fan to cool or warm indoor air quickly, in a short period of time.
- Open windows regularly for ventilation as the indoor air quality may deteriorate if the air conditioner is used for many hours.
- Clean the air filter once every 2 weeks. Dust and impurities collected in the air filter may block the air flow or reduce the cooling/ dehumidification functions

For your records

Staple your receipt to this page in case you need it to prove the date of purchase or for warranty purpose. Write the model number and the serial number here:

Model number :

Serial number :

You can find them on a label on the side of each unit.

Dealer's name :

Date of purchase :

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INSTALLATION MANUAL AIR CONDITIONER

Please read this manual carefully before operating your set and retain it for future reference.

TYPE : WALL MOUNTED

The equipment complies with requirements of the Technical Regulation, in terms of restrictions for the use of certain dangerous substances in electrical and electronic equipments.



P/No : MFL39754871