

INSTALLATION MANUAL AIR CONDITIONER

TYPE : WALL MOUNTED
Original instruction

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P/No : MFL67713861



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:

- Do not cool excessively indoors. 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 weaken the cooling/dehumidifying functions.

For your records

Staple your receipt to this page in case you need it to prove the date of purchase or for warranty purposes. 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 a hazard.
- 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.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only using only genuine replacement parts.
- Air conditioner shall be disconnected from its power source during service and when replacing parts.
- Installation MUST conform with local building codes or, in the absence of local codes, with the National Electrical Code NFPA 70/ANSI C1-1003 or current edition and Canadian Electrical Code Part I CSA C-22.1.

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 a fire or electrical shock.
- For installation of the product, always contact the service center or a professional installation agency.
- Otherwise, it may cause a 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 a fire or electric shock due to dust, water, etc.
- Always install an air leakage breaker and a dedicated switching board.
- No installation may cause a fire and electrical shock.
- Do not keep or use flammable gases or combustibles near the air conditioner.
- Otherwise, it may cause a 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 a fire or electrical shock.
- Do not install the product at a place that there is concern of falling down.
- Otherwise, it may result in personal injury.

- Use caution when unpacking and installing.
- Sharp edges may cause injury.
- Thickness of copper pipes used are as shown "Flaring work" Table.
- Never use copper pipes thinner than that in the table even when it is available on the market.
- 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 (explosion), and possibly result in explosion and injury.
- It is desirable that the amount of residual oil less than 40 mg/10m.
- If air enters the refrigerant system, an excessively high pressure results, causing equipment damage or injury.
- Always check for gas (refrigerant) leakage after installation or repair of product. Low refrigerant levels may cause failure of product.
- Ensure that you grab the chassis when you lift the unit.
- If you lift the unit with the panel held, it may result in serious injury or product failure.
- Do not turn on the breaker or power under condition that front panel, cabinet, top cover, control box cover are removed or opened.
- Otherwise, it may cause fire, electric shock, explosion or death.
- Make the connections securely so that the outside force of the cable may not be applied to the terminals.
- Inadequate connection and fastening may generate heat and cause a fire.
- After pump down, power must be turned off before removing the pipe.
- When operating this product without connecting the pipe, there will be high pressure inside the compressor due to the entry of air, possibly causing explosion or injury.
- If the air conditioner is installed in a small room, measures must be taken to prevent the refrigerant concentration from exceeding the safety limit when the refrigerant leaks.
- Consult the dealer regarding the appropriate measures to prevent the safety limit from being exceeded. Should the refrigerant leak and cause the safety limit to be exceeded, hazards due to lack of oxygen in the room could result.
- Use a vacuum pump or inert (nitrogen) gas when doing leakage test or air purge. Do not compress air or oxygen and do not use flammable gases.
- Otherwise, it may cause fire or explosion. There is the risk of death, injury, fire or explosion.

Operation

- Do not share the outlet with other appliances.
- It will cause an electric shock or a fire due to heat generation.
- Do not use the damaged power cord.
- Otherwise, it may cause a fire or electrical shock.
- Do not modify or extend the power cable.
- Scratches or peeling insulation on the power cables may result in fire or electric shock, and should be replaced.

- Take care so that the power cord may not be pulled during operation.
- Otherwise, it may cause a fire or electrical shock.

- Unplug the unit if strange sounds, smell, or smoke comes from it.
- Otherwise, it may cause electrical shock or a fire.
- Keep the flames away.
- Otherwise, it may cause a fire.
- Take the power plug out if necessary, holding the head of the plug and do not touch it with wet hands.
- Otherwise, it may cause a fire or electrical shock.
- Do not use the power cord near the heating tools.
- Otherwise, it may cause a fire and electrical shock.
- Do not open the suction inlet of the indoor/outdoor unit during operation.
- Otherwise, it may electrical shock and 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.
- It may cause electric shock and damage.
- 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 a fire or electrical shock.
- When the product is submerged into water, always contact the service center.
- Otherwise, it may cause a 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.

CAUTION

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 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.
- Features may change according to the type of model.

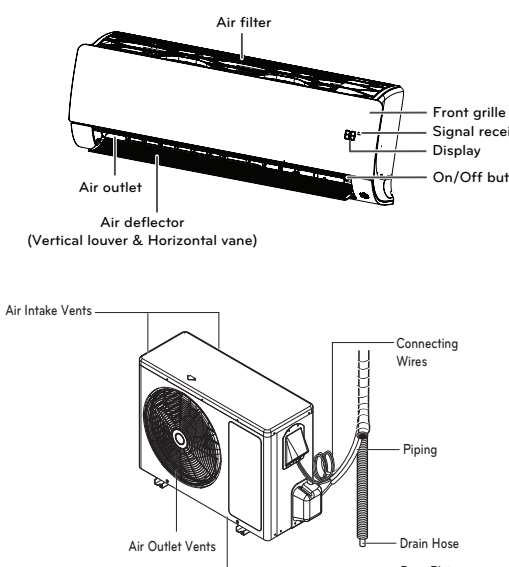
1

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.
- This symbol indicates special notes.

Features



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

INSTALLATION PARTS

Name	Quantity	Shape
Installation plate	1 EA	
Type "A" screw	5 EA	
Type "B" screw	2 EA	
Type "C" screw	2 EA	
Type "D" screw	2 EA	
Bracket	1 EA	
Remote control holder	1 EA	Type "B" screw
Cloth tape	1 EA	
Connector	3EA (18k,24k)	
Terminal	1EA	

Screws for fixing panels are attached to decoration panel.

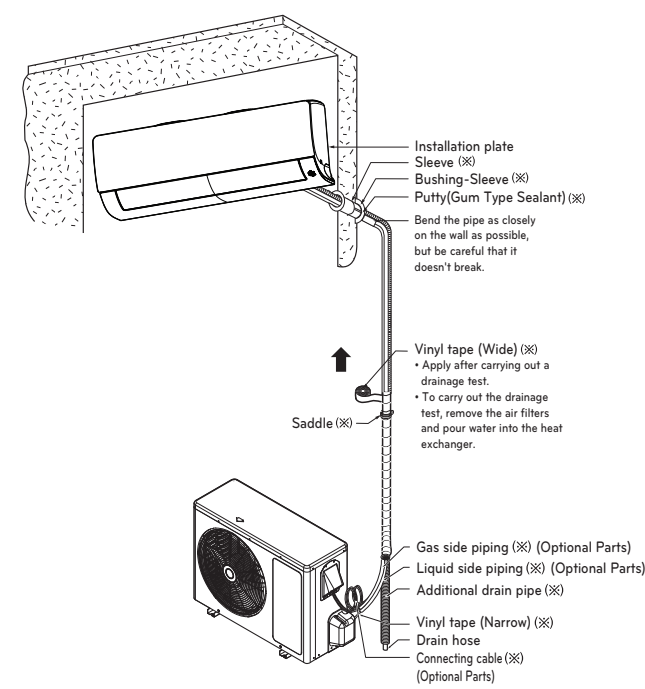
When Indoor unit (18/24k) is connected to the Multi Outdoor unit, use the connector.

INSTALLATION TOOLS

Figure	Name	Figure	Name
	Screw driver		Multi-meter
	Electric drill		Hexagonal wrench
	Measuring tape, Knife		Ammeter
	Hole core drill		Gas-leak detector
	Spanner		Thermometer, Level
	Torque wrench		Flaring tool set

2

INSTALLATION MAP



- * The feature can be changed according a type of model.
- * Work to the vinyl tape should up from below.

NOTE

- * You should purchase the installation parts. (It can be changed according to market)

INSTALLATION

Select the best Location

- There should not be any heat or steam near the unit.
- Select a place where there are no obstacles around of the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the interval between a wall and the left (or right) of the unit is more than 4 in. The unit should be installed as high as possible on the wall, allowing a minimum of 8 in. from ceiling.
- Use a metal detector to locate studs to prevent unnecessary damage to the wall.



(Unit : inch)

NOTE

The gap between the indoor unit and ceiling is needed more than 8 in. for disassemble the air filter.

NOTE

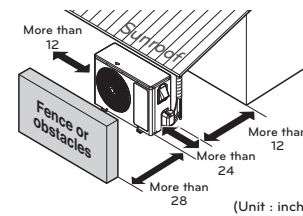
Remove obstructions to prevent blockage of airflow path.

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 and sides is more than 12 in. The space in front of the unit should be more than 28 in. of space.
- 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.

* Sunroof is recommended for installations that are exposed to direct sunlight and for installations in cold climates with heavy snow which can accumulate on top of outdoor unit.



(Unit : inch)

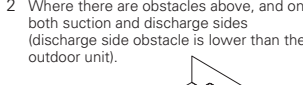
Outdoor Unit Service Access and Allowable Clearances

- Where there are obstacles on both suction and discharge sides (discharge side obstacle is lower than the outdoor unit).



(Unit : inch)

- Where there are obstacles above, and on both suction and discharge sides (discharge side obstacle is lower than the outdoor unit).

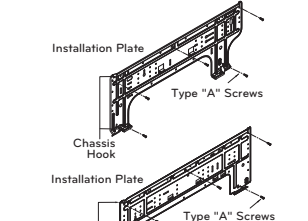


(Unit : inch)

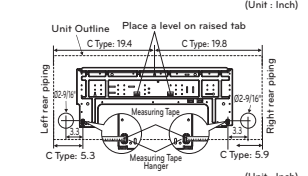
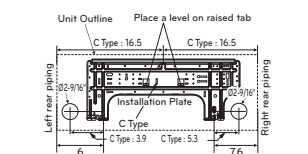
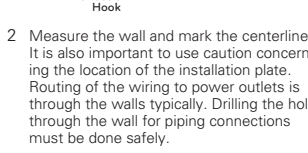
Fixing Installation Plate

The wall you select should be strong and solid enough to prevent vibration

- 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.



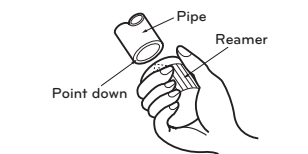
- Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.



(Unit : inch)

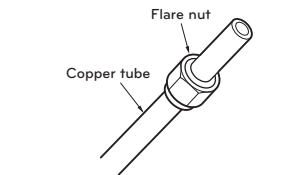
Burrs removal

- Completely remove all burrs from the cut cross section of pipe/tube.
- While removing burrs put the end of the copper tube/pipe in a downward direction while removing burrs location is also changed in order to avoid dropping burrs into the tubing.



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 finishing flare work)



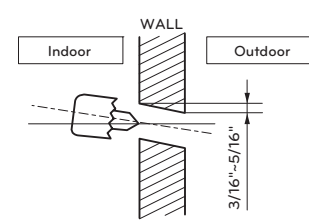
Flaring work

- Firmly hold copper pipe in a bar with the dimension shown in below table.
- Carry out flaring work with the flaring tool.

Pipe diameter Inch (mm)	Wing nut type	Clutch type
Ø1/4 (Ø6.35)	0.04~0.07 (1.1~1.8)	0~0.02 (0~0.5)
Ø3/8 (Ø9.52)		
Ø1/2 (Ø12.7)		
Ø5/8 (Ø15.88)		

Drill a Hole in the Wall

- Drill the piping hole with a Ø2.9/16" hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.

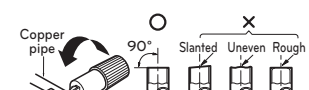


Flaring Work

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

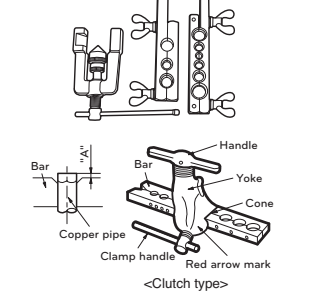
Cut the pipes and the cable

- 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 4.9 ft longer than the pipe length.



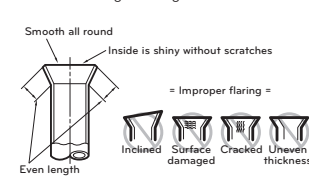
(Unit : inch)

<Wing nut type>



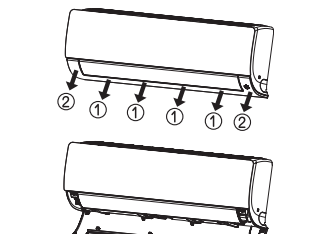
Check

- Compare the flared work with the figure by.
- If a flared section is defective, cut it off and do flaring work again.



Connecting the Piping

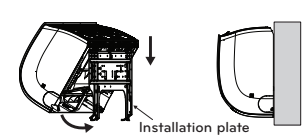
- Pull the cover at the bottom of the indoor unit. Pull the cover ① → ②.
- Remove the cover from the indoor unit.



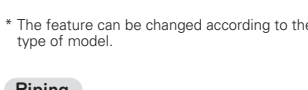
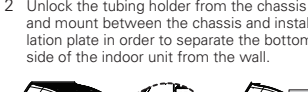
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Installation of Indoor Unit

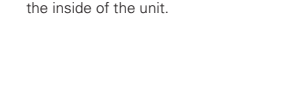
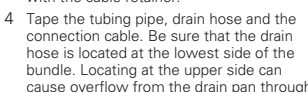
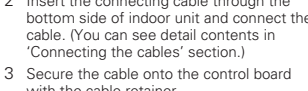
Hook the indoor unit onto the upper portion of the installation plate (engage the three hooks at the top of the indoor unit with the upper edge of the installation plate). Ensure that the hooks are properly seated on the installation plate by moving it left and right.



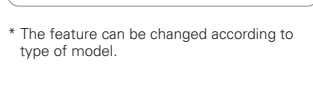
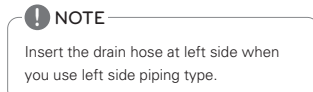
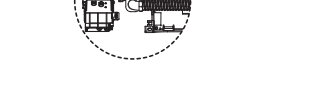
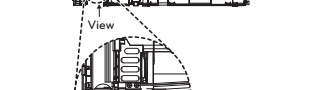
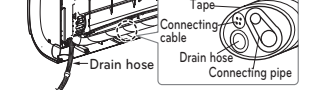
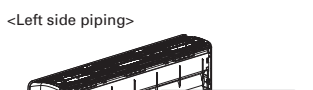
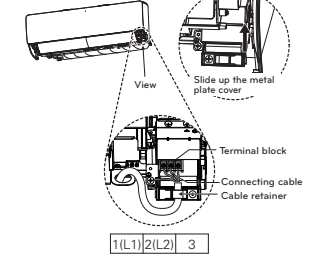
Installation plate



Tubing Holder



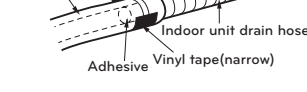
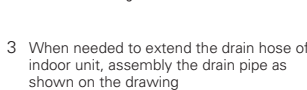
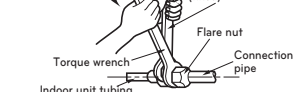
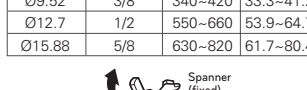
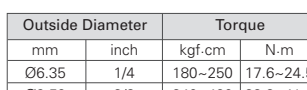
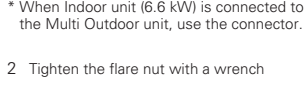
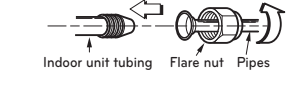
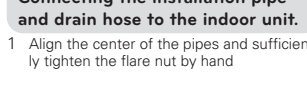
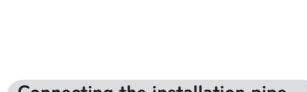
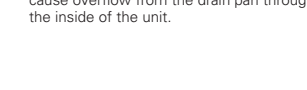
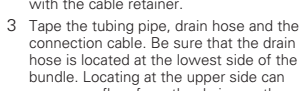
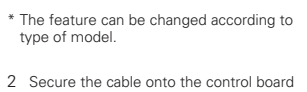
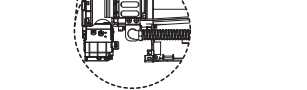
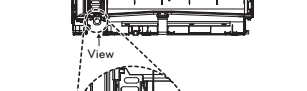
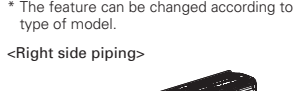
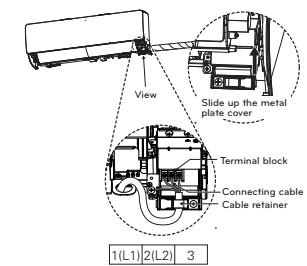
<Left side piping>



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

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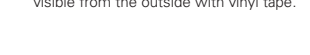
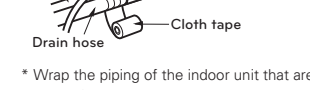
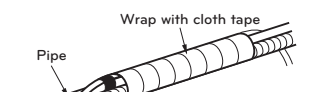
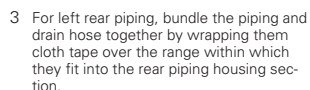
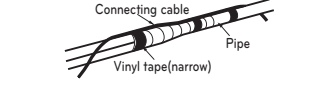
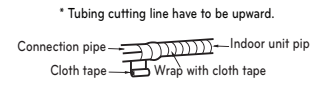
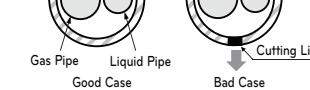
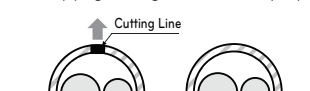
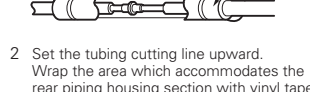
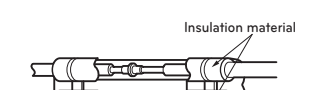
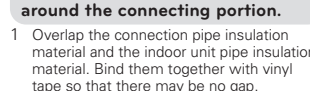
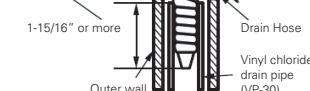
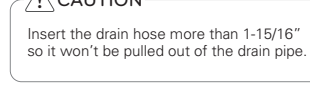
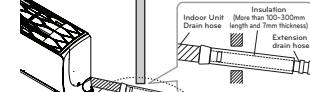
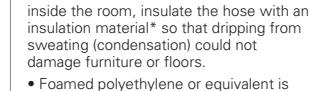
<Right side piping>



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

CAUTION

Must use the elbow type (L-Type) conduit
Method:
1. Disassemble bracket (from indoor unit)
2. Assemble it with conduit
3. Reassemble it with indoor unit.



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

Outdoor unit

- Remove the tubing cover from the unit by loosening the screw.

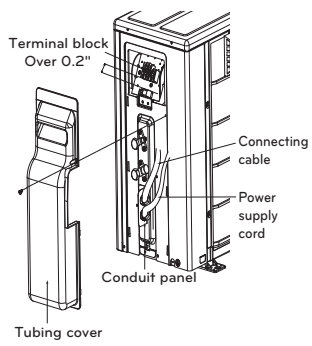
- * All power wiring/communication cables must comply with applicable local and national codes.
- * Field wiring shall be done such that the current-carrying conductors become taut before the earthing conductor if the cord slips out of the cord anchorage.

Outdoor unit

- 1 Remove the front panel (Right) or cover control from the unit by loosening the screw. Connect the wires to the terminals on the control board individually.
- 2 Secure the cable onto the control board with the cord clamp.
- 3 Refix the front panel(Right) to the original position with the screw.
- 4 Use a recognized circuit breaker between the power source and the unit. A disconnecting device to adequately disconnect all supply lines must be fitted.

Circuit Breaker (A)	Capacity(Btu/h)	
9, 12k	18, 24k	
15	25	

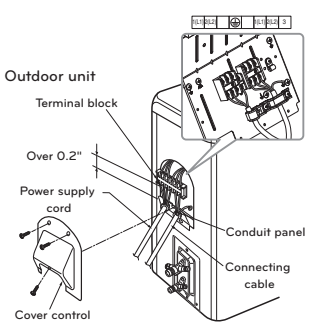
<9, 12k>



CAUTION

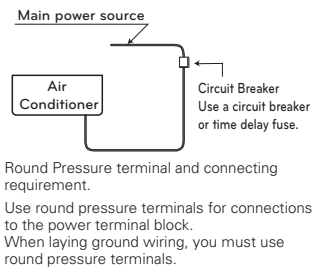
- According to the confirmation of the above conditions, prepare the wiring as follows.
- 1 Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control cover.
 - 2 The screw which fasten 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 capacity is sufficient.
 - 5 See that 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.)
 - 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 0.12 in. in each active/phase conductors.
 - 10 Open the terminal cover block before connecting the indoor side wire.

<18, 24k>



CAUTION

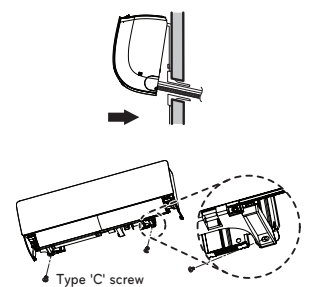
- When using the separate wire as the power cord, please fix the separate wire into the control box panel by using tie wrap as the fixture. 'A' & 'B' are minimum recommended wire size.
- Provide the circuit breaker between power source and the unit as shown by.



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

Finishing the indoor unit installation

- 1 Mount the tubing holder in the original position.
- 2 Ensure that the hooks are properly seated on the installation plate by moving it left and right.
- 3 Press the lower left and right sides of the unit against the installation plate until the hooks engage into their slots (clicking sound).
- 4 Finish the assembly by screwing the unit to the installation plate by using two pieces of type 'C' screws. And assemble a chassis cover.



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

CAUTION

The indoor unit can be dropped from the wall, the indoor unit is not screwed correct position on the install plate. To avoid the gap between the indoor unit and wall, screw the indoor unit to the install plate correctly.

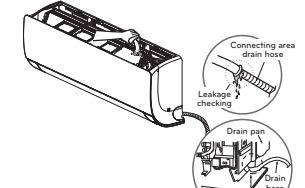
CAUTION

- Before finishing installation of the indoor unit, seal the hole of a wall except the pipe's ways to prevent condensate from inflow of outdoor air.

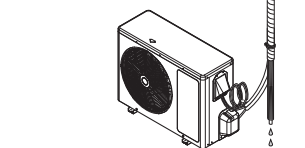
Checking the Drainage

To check 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.



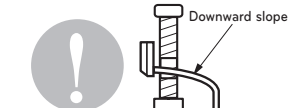
* The feature can be changed according to type of model.



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

Drain piping

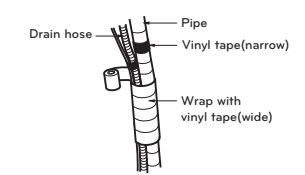
- 1 The drain hose should point downward for easy drain flow.



Forming the Piping

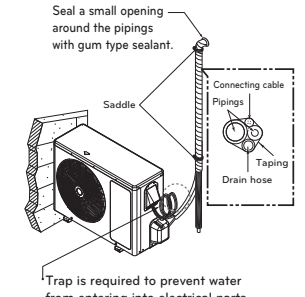
Form the piping by wrapping the connecting portion of the indoor unit with insulation material and secure it with two kinds of vinyl tapes.

- If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. Secure the drain hose appropriately.



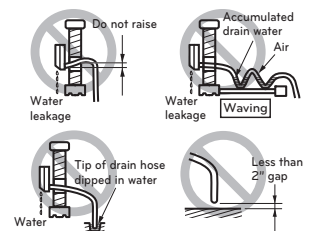
In cases where the outdoor unit is installed below the indoor unit perform the following.

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



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

- 2 Do not make drain piping like the following.

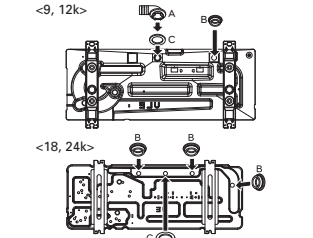


* The feature can be changed according to type of model.

Installing drain piping of the outdoor unit

Depending on installation site, it may be required to install drain plug for drainage (Supplied with the unit). In cold areas, do not use a drain hose with the outdoor unit. Otherwise, drain water may freeze, impairing the heating performance.

- 1 See the figure below for installation of the drain plug.
 - A Drain nipple
 - B Drain cap
 - C Drain washer
- 2 Connect a field supplied vinyl hose to the drain nipple (A). If the hose is too long and hangs down, fix it carefully to prevent kinks.



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

- 2 Leak test

- Check the manifold valve with pressure gauge(s) 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. (17.6 kgf/cm²G) (R22 model) or 400 P.S.I.G. (28.1 kgf/cm²G) (R410A model) with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 250 P.S.I.G. (17.6 kgf/cm²G) (R22 model) or 400 P.S.I.G. (28.1 kgf/cm²G) (R410A 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.

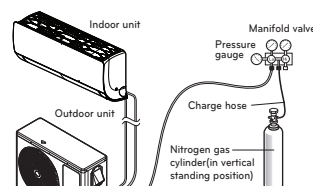
WARNING

It may cause explosion or injury.

- After pump down, power must be turned off before removing the pipe. When operating this product without connecting the pipe, there will be high pressure inside the compressor due to the entry of air, possibly causing explosion or injury.

- Do a leak test of all joints of the tubing both indoor and outdoor and both gas and liquid side service valves. Bubbles indicate a leak. Be sure to wipe off the soap with a clean cloth.

- After the system is found to be free of leaks, relieve the nitrogen pressure by loosening the charge hose connector at the nitrogen cylinder. When the system pressure is reduced to normal, disconnect the hose from the cylinder.



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

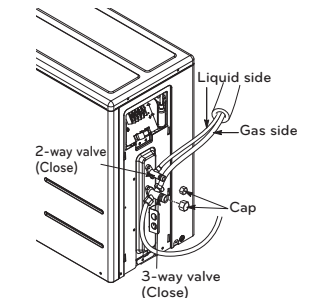
Soap water method

- 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

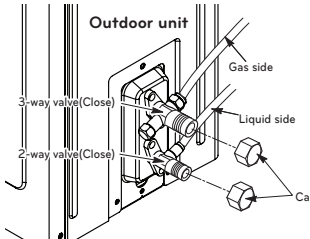
Evacuation

- 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 evacuation.

<9, 12k>



<18, 24k>



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

Required time for evacuation when 30 galh vacuum pump is used	
If tubing length is less than 33 ft	If tubing length is longer than 33 ft
10 min. or more	15 min. or more

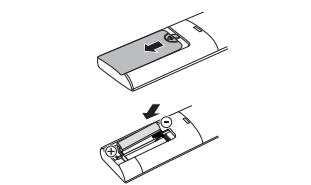
- When the desired vacuum is reached, close the knob of the 3-way valve and stop the vacuum pump.

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

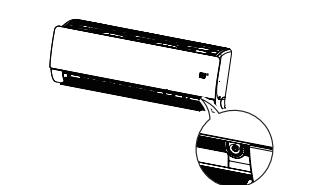
- 1 Remove the battery cover by pulling it according to the arrow direction.
- 2 Insert new batteries making sure that the (+) and (-) of battery are installed correctly.
- 3 Reattach the cover by pushing it back into position.



NOTE

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

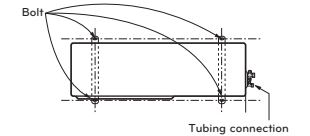
Test operation



- 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.

Settlement of outdoor unit

- 1 Fix the outdoor unit with a bolt and nut (Ø 0.39 in.) tightly and horizontally on a concrete or rigid mount.
- 2 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.
- 3 If the vibration of the unit is transmitted to the pipe, secure the unit with an anti-vibration rubber.

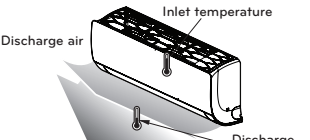


Evaluation of the performance

Operate the unit for 15~20 minutes, then check the system refrigerant charge.

- 1 Measure the pressure of the gas side service valve.
- 2 Measure the air temperature from inlet and outlet of air conditioner.
- 3 Ensure the difference between the inlet and outlet temperature is more than 14.4 °F.
- 4 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 type of model.

Refrigerant	Outside ambient TEMP.	The pressure of the gas side service valve.
R22	95 °F	56.8~71.0 P.S.I.G. (4~5 kgf/cm ² G)
R410A	95 °F	120~135 P.S.I.G. (8.5~9.5 kgf/cm ² G)

C/O(Cooling Only) Mode

C/O switching function set up

- 1 Supply the power to the unit with no functions active.
- 2 Enter the Installer Code and set the code to 45.
- 3 Press [F4] to select the code No. 45 then, check if buzzer beeps.
- 4 Cut the power to the unit.
- 5 Turn back on the power to the unit after 30 seconds.

C/O switching function disable set up

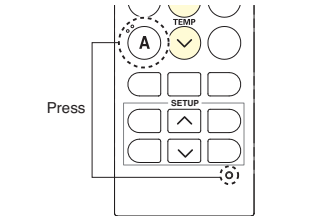
- 1 Supply the power to the unit with no functions active.
 - 2 Enter the Installer Code and set the code to 43.
 - 3 Press [F4] to select the code No. 43 then, check if buzzer beeps.
 - 4 Set the code to 46 and press [F4] then, check if buzzer beeps.
 - 5 Cut the power to the unit.
 - 6 Turn back on the power to the unit after 30 seconds.
- * The feature can be changed according to type of model.

NOTE

- Once the function is set up, heating and automatic operation cannot be used.
- Once the function is disable it will return to its normal state
- Code cannot be entered when it is in operation mode. It must be OFF state to enter code
- Even if able to enter code in ON state, it won't function if the code is not entered in OFF state
- Considering the communication time of the accessory built on the Air-conditioning, operate the accessory approximately after 1 min.
- Erase lock or mode lock cannot be set if heating and automatic operation is set through central controller

* How to enter the installer mode

Press Reset Button and 'A' Button (A)



* How to set the code

Set the code you want by pressing TEMP button (TEMP) and press [F4].

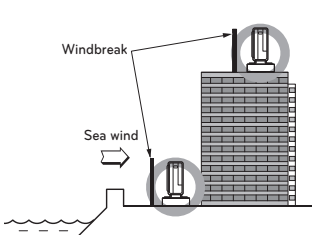


Installation guide at the seaside

CAUTION

- 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 sea-side, it should avoid direct exposure to the sea wind. Otherwise it needs additional anticorrosion treatment on the heat exchanger.

In case of installing the outdoor unit on the sea side, setup a windbreak to prevent sea wind.



- 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.
- Keep more than 2.3 ft of space between outdoor unit and the windbreak for easy air flow.

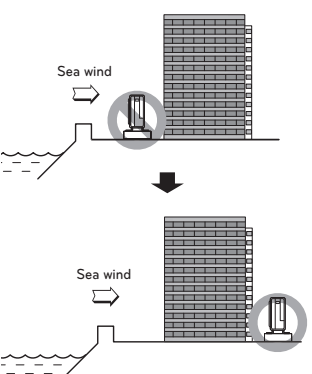
Select a well-drained place.

NOTE

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

Auxiliary heater relay kit

Auxiliary heater relay kit is not available on single zone wall mounted models.



Piping Length and Elevation

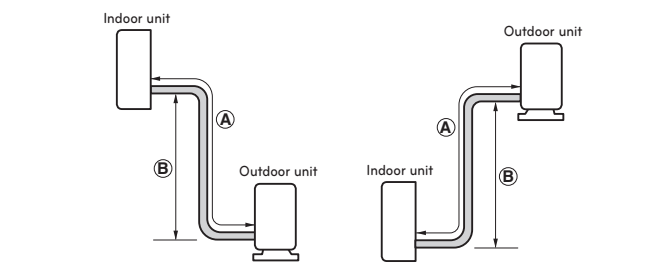
Single Split Model

Capacity (Btu/h)	Pipe Size				Standard Length (ft)	Max. Length (ft)	Max. Elevation (ft)	Additional Re- frigerant (oz/ft)
	GAS		LIQUID					
	mm	inch	mm	inch				
9k / 12k	Ø 9.52	3/8	Ø 6.35	1/4	24.6	82	49.2	0.22
18k	Ø 15.88	5/8	Ø 9.52	3/8	24.6	114.8	49.2	0.38
24k	Ø 15.88	5/8	Ø 9.52	3/8	24.6	114.8	49.2	0.38

* During the installation and binding of Multi model, refer to Multi outdoor unit installation manual.

Multi Model

Capacity (Btu/h)	Pipe Size			
	GAS		LIQUID	
	mm	inch	mm	inch
7k / 9k / 12k / 15k	Ø 9.52	3/8	Ø 6.35	1/4
18k / 24k	Ø 12.7	1/2	Ø 6.35	1/4



CAUTION

- Capacity is based on standard length and maximum allowable length is on the basis of reliability.
- Additional refrigerant must be charged after 41 ft (9k, 12k Model) / 24.6 ft (18k, 24k Model)

* Refer to Multi outdoor unit installation manual.

Operation ranges

The table below indicates the temperature ranges the air conditioner can be Operated within. With wind baffle installed, the minimum temperature will be 0 °F D.B. in cooling.

Mode	Indoor temperature	Outdoor temperature
Cooling	64 ~ 90 °F	14 [0°] ~ 118 °F
Heating	61 ~ 86 °F	-4 ~ 75 °F

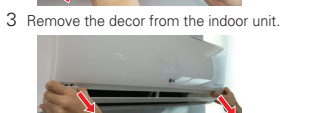
Check test items

	Test Items	Check
1	Indoor unit is hooked to the installation plate properly.	
2	The gas and liquid service valves are fully opened.	
3	There is no refrigerant gas leakage.	
4	System is properly grounded.(No electrical leakage)	
5	The connection cable is clamped firmly.	
6	Indoor unit receives remote control commands and operates properly.	
7	Cooling/Heating operation is normal.	
8	There is no abnormal sound.	
9	There is no water leakage.	

Manual the decor, air filter Assembly & Disassembly

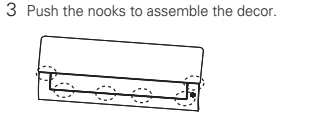
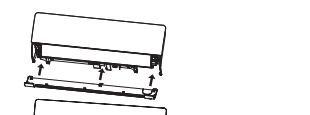
Disassemble the decor

- 1 Turn off the power and unplug the power cord.
- 2 Pull the decor at the bottom of the indoor unit.



Assemble the decor

- 1 Turn off the power and unplug the power cord.
- 2 Insert 3 or 4 hooks of the decor into gap of the indoor unit certainly.



CAUTION

The air filter can be broken when it is bended.

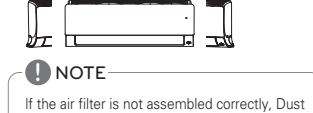
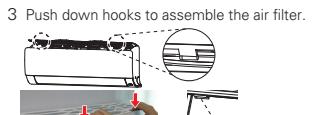
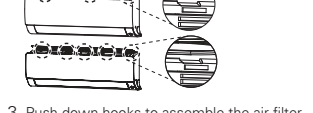
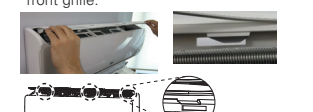
Disassemble the air filter

- 1 Turn off the power and unplug the power cord.
- 2 Hold the knob of the air filter, Lift it up slightly.



Assemble the air filter

- 1 Turn off the power and unplug the power cord.
- 2 Insert the hooks of the air filter into the front grille.



NOTE

If the air filter is not assembled correctly, Dust and other substance come into the indoor unit. If look at the indoor unit from higher than it, can assemble the air filter easily.

Precautions about installation in regions with extreme snowfall and cold temperatures

To ensure the outdoor unit operates properly, certain measures are required in locations where there is a possibility of heavy snowfall or severe wind chill or cold:

- 1 Prepare for severe winter wind chills and heavy snowfall, even in areas of the country where these are unusual phenomena.
- 2 Position the outdoor unit so that its airflow fans are not buried by direct, heavy snowfall. If snow piles up and blocks the airflow, the system may malfunction.
- 3 Remove any snow that has accumulated 4 in or more on the top of the outdoor unit.
- 4 Place the outdoor unit on a raised platform at least 20 in higher than the average annual snowfall for the area. If the frame width is wider than the outdoor unit, snow may accumulate.
- 5 Install a snow protection hood.
- 6 To prevent snow and heavy rain from entering the outdoor unit, install the suction and discharge ducts facing away from direct winds.
- 7 Additionally, the following conditions should be taken into consideration when the unit operates in defrost mode:
 - If the outdoor unit is installed in a highly humid environment (near an ocean, lake, etc.), ensure that the site is well-ventilated and has a lot of natural light. (Example: Install on a rooftop.)