

INSTALLATION MANUAL

AIR CONDITIONER

Please read this installation manual completely before installing the product.
Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
Please retain this installation manual for future reference after reading it thoroughly.

WALL MOUNTED
Original instruction



MFL67855543
Rev.03_032520

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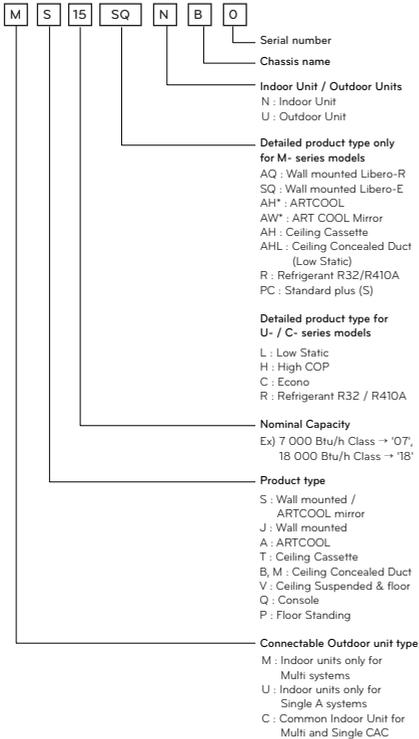
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MODEL DESIGNATION

Product information

- Product Name : Air conditioner

- Model Name :



- Additional Information : serial number is refer to the barcode on the product.

- Refrigerant : R32 / R410A

Airborne Noise Emission

The A-weighted sound pressure emitted by this product is below 70 dB.

** The noise level can vary depending on the site.

The figures quoted are emission level and are not necessarily safe working levels.

Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required.

Factor that influence the actual level of exposure of the workforce include the characteristics of the work room and the other sources of noise, i.e. the number of equipment and other adjacent processes and the length of time for which an operator exposed to the noise. Also, the permissible exposure level can vary from country to country.

This information, however, will enable the user of the equipment to make a better evaluation of the hazard and risk.

Limiting concentration

Limiting concentration is the limit of Freon gas concentration where immediate measures can be taken without hurting human body when refrigerant leaks in the air. The limiting concentration shall be described in the unit of kg/m^3 (Freon gas weight per unit air volume) for facilitating calculation

Limiting concentration: $0.44\text{kg}/\text{m}^3(\text{R410A})$

■ Calculate refrigerant concentration

$$\text{Refrigerant concentration (kg/m}^3\text{)} = \frac{\text{Total amount of replenished refrigerant in refrigerant facility (kg)}}{\text{Capacity of smallest room where indoor unit is installed (m}^3\text{)}}$$

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 : _____

SAFETY INSTRUCTIONS

The following symbols are displayed on indoor and outdoor units.

	Read the precautions in this manual carefully before operating the unit.		This appliance is filled with flammable refrigerant (for R32)
	This symbol indicates that the Operation Manual should be read carefully.		This symbol indicates that a service personnel should be handling this equipment with reference to the Installation Manual.

The following safety guidelines are intended to prevent unforeseen risks or damage from unsafe or incorrect operation of the appliance.

The guidelines are separated into 'WARNING' and 'CAUTION' as described below.

 This symbol is displayed to indicate matters and operations that can cause risk. Read the part with this symbol carefully and follow the instructions in order to avoid risk.

WARNING

This indicates that the failure to follow the instructions can cause serious injury or death.

CAUTION

This indicates that the failure to follow the instructions can cause the minor injury or damage to the product.

WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- 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.
- Compliance with national gas regulations shall be observed.

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.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater.)
- Two or more people must lift and transport the product. Avoid personal injury.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- Do not pierce or burn refrigerant cycle part.
- Be aware that refrigerants may not contain an odour.
- Keep any required ventilation openings clear of obstruction.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

- Refrigerant tubing shall be protected or enclosed to avoid damage.
- Flexible refrigerant connectors (such as connecting lines between the indoor and outdoor unit) that may be displaced during normal operations shall be protected against mechanical damage.
- A brazed, welded, or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts.
- Mechanical connections shall be accessible for maintenance purposes.

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 cord randomly.
 - Otherwise, it may cause a fire or electrical shock.
- 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.
- 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.
- 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.
- Turn off all devices that cause fire when the refrigerant leaks., ventilate the room (example : opening window or using ventilation unit), and contact with dealer who you purchased the unit.
- The installation of pipe-work shall be kept to a minimum.
- When mechanical connectors are reused indoors, sealing parts shall be renewed.(for R32)
- When flared joints are reused indoors, the flare part shall be re-fabricated.(for R32)

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.

- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification. (for R32)
- Wear adequate personal protection equipment (PPE) when installing, maintaining or servicing the product.
- Pipe-work shall be protected from physical damage
- If anyone other than a licensed professional installs, repairs, or alters LG Electronics air conditioning products, the warranty is voided.
 - All costs associated with repair are then the full responsibility of the owner.

Operation

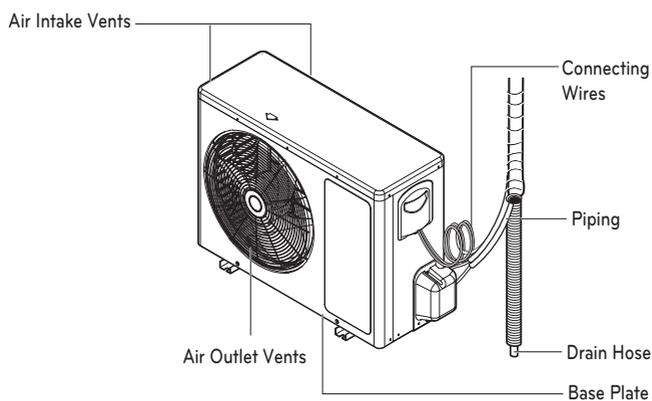
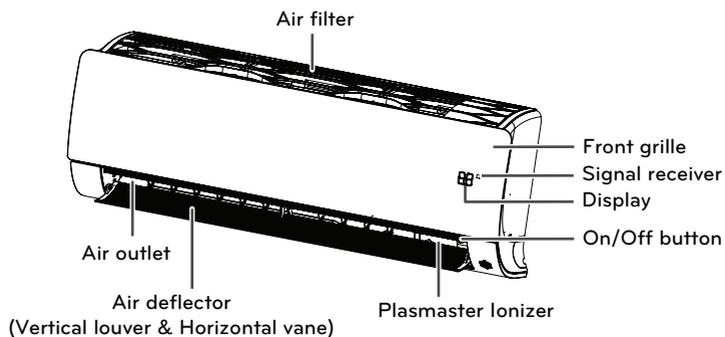
- Avoid excessive cooling and perform ventilation sometimes.
 - Otherwise, it may do harm to your health.
- Use a soft cloth to clean. Do not use wax, thinner, or a strong detergent.
 - The appearance of the air conditioner may deteriorate, change color, or develop surface flaws.
- Do not use an appliance 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.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants. (for R32)
- Dismantling the unit, treatment of the refrigerant oil and eventual parts should be done in accordance with local and national standards.
- Periodic (more than once/year) cleaning of the dust or salt particles stuck on the heat exchanger by using water.
- Means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

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INTRODUCTION

Features

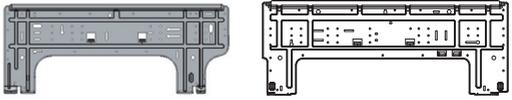


* The feature can be changed according to type of model.

NOTE

- When mechanical connectors are reused indoors, sealing parts shall be renewed.

INSTALLATION PARTS

Name	Quantity	Shape
Installation plate	1 EA	 <p>The feature can be changed according to type of model.</p>
Type "A" screw	5 EA	
Type "B" screw	2 EA	
Type "C" screw	2 EA	
Remote control holder	1 EA	<p>Type "B" screw</p> 
Cloth tape	1 EA	
Connector	1 EA (5.0 kW) 2 EA (6.6 kW)	 <p>5.0 kW : ① Ø9.52 (3/8) → Ø12.7 (1/2) 6.6 kW : ① Ø9.52 (3/8) → Ø12.7 (1/2) ② Ø15.88 (5/8) → Ø12.7 (1/2)</p>

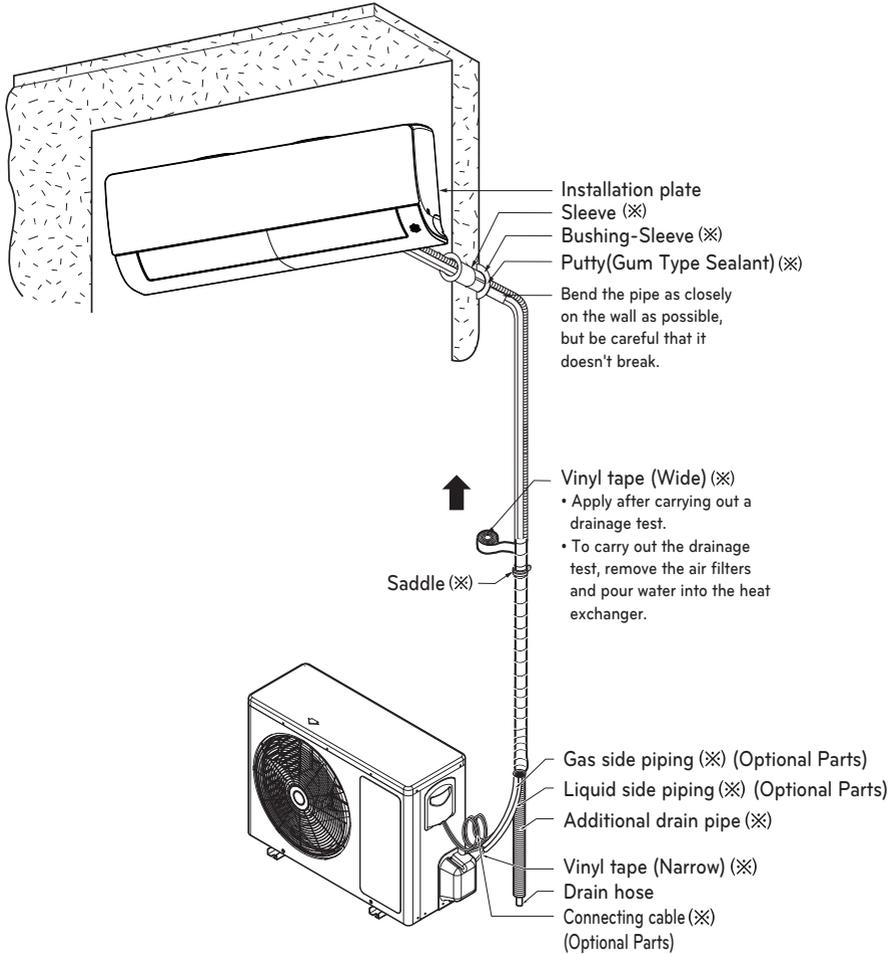
Screws for fixing panels are attached to decoration panel.

When Indoor unit (5.0/6.6 kW) 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

INSTALLATION MAP



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

* Work to the vinyl tape should up from below.

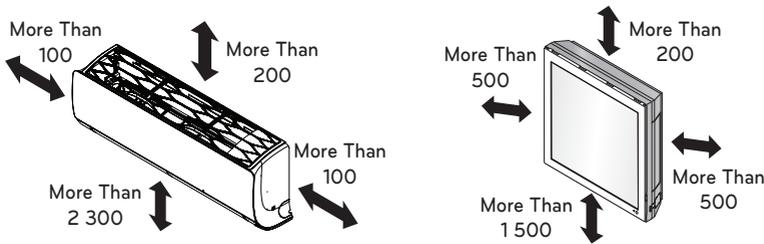
NOTE

- 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 100 mm. The unit should be installed as high as possible on the wall, allowing a minimum of 200 mm from ceiling.
- Use a metal detector to locate studs to prevent unnecessary damage to the wall.



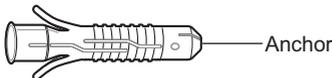
(Unit : mm)

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

NOTE

The gap between the indoor unit and ceiling is needed more than 200 mm for disassemble the air filter.

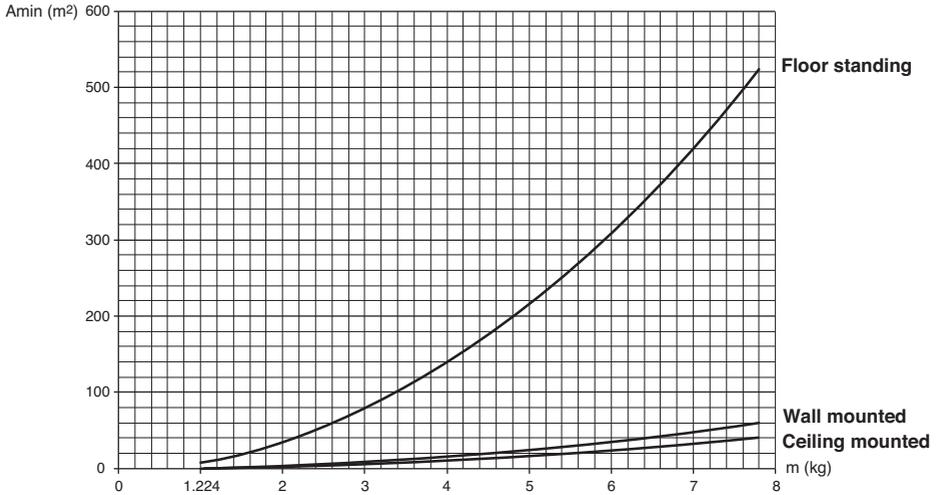
- Do not use nails and/or screws to attach indoor units to sheetrock, drywall, plasterboard, tile, plywood, or similar material types without proper anchors. Indoor units must be securely, and properly mounted and anchored or damage and/or injury may result from improper installation.



Anchor (mm)	Screw (mm)
6 x 30	4 x 50

Minimum floor area (for R32)

- The appliance shall be installed, operated and stored in a room with a floor area larger than the minimum area.
- Use the graph of table to determine the minimum area.



- m : Total refrigerant amount in the system
- Total refrigerant amount : factory refrigerant charge + additional refrigerant amount
- Amin : minimum area for installation

Floor location	
m (kg)	Amin (m ²)
< 1.224	-
1.224	12.9
1.4	16.82
1.6	21.97
1.8	27.80
2	34.32
2.2	41.53
2.4	49.42
2.6	58.00
2.8	67.27
3	77.22
3.2	87.86
3.4	99.19
3.6	111.20
3.8	123.90
4	137.29
4.2	151.36
4.4	166.12

Floor location	
m (kg)	Amin (m ²)
4.6	181.56
4.8	197.70
5	214.51
5.2	232.02
5.4	250.21
5.6	269.09
5.8	288.65
6	308.90
6.2	329.84
6.4	351.46
6.6	373.77
6.8	396.76
7	420.45
7.2	444.81
7.4	469.87
7.6	495.61
7.8	522.04

Wall mounted	
m (kg)	Amin (m ²)
< 1.224	-
1.224	1.43
1.4	1.87
1.6	2.44
1.8	3.09
2	3.81
2.2	4.61
2.4	5.49
2.6	6.44
2.8	7.47
3	8.58
3.2	9.76
3.4	11.02
3.6	12.36
3.8	13.77
4	15.25
4.2	16.82
4.4	18.46

Wall mounted	
m (kg)	Amin (m ²)
4.6	20.17
4.8	21.97
5	23.83
5.2	25.78
5.4	27.80
5.6	29.90
5.8	32.07
6	34.32
6.2	36.65
6.4	39.05
6.6	41.53
6.8	44.08
7	46.72
7.2	49.42
7.4	52.21
7.6	55.07
7.8	58.00

Ceiling Mounted	
m (kg)	Amin (m ²)
< 1.224	-
1.224	0.956
1.4	1.25
1.6	1.63
1.8	2.07
2	2.55
2.2	3.09
2.4	3.68
2.6	4.31
2.8	5.00
3	5.74
3.2	6.54
3.4	7.38
3.6	8.27
3.8	9.22
4	10.21
4.2	11.26
4.4	12.36

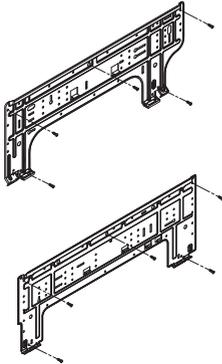
Ceiling Mounted	
m (kg)	Amin (m ²)
4.6	13.50
4.8	14.70
5	15.96
5.2	17.26
5.4	18.61
5.6	20.01
5.8	21.47
6	22.98
6.2	24.53
6.4	26.14
6.6	27.80
6.8	29.51
7	31.27
7.2	33.09
7.4	34.95
7.6	36.86
7.8	38.83

Fixing Installation Plate

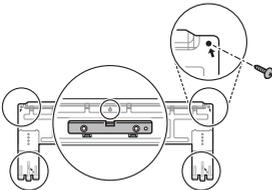
The wall you select should be strong and solid enough to prevent vibration

- 1 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.

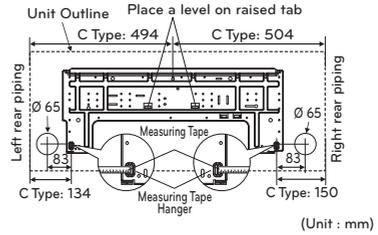
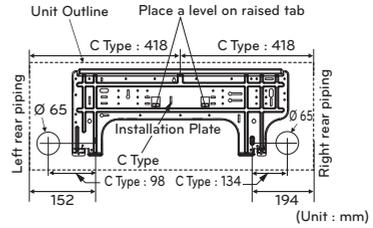
SK/SJ Chassis



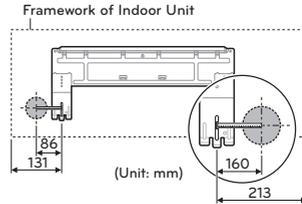
SR Chassis



SK/SJ Chassis

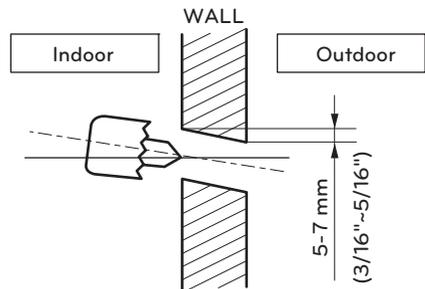


SR Chassis



Drill a Hole in the Wall

- Drill the piping hole with a $\varnothing 65$ mm hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.



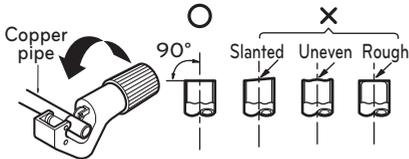
- 2 Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate. Routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

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

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

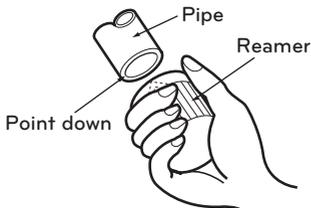


NOTE

- Use the deoxidised copper as piping materials to install.

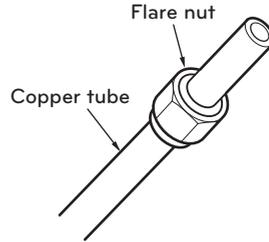
Burrs removal

- 1 Completely remove all burrs from the cut cross section of pipe/tube.
- 2 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)



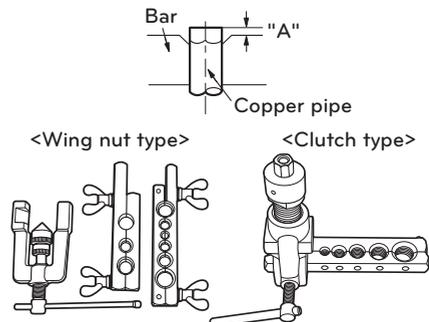
Flaring work

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

Pipe diameter Inch (mm)	A inch (mm)	
	Wing nut type	Clutch type
Ø 1/4 (Ø 6.35)	0.04~0.05 (1.1~1.3)	0~0.02 (0~0.5)
Ø 3/8 (Ø 9.52)	0.06~0.07 (1.5~1.7)	
Ø 1/2 (Ø 12.7)	0.06~0.07 (1.6~1.8)	
Ø 5/8 (Ø 15.88)	0.06~0.07 (1.6~1.8)	
Ø 3/4 (Ø 19.05)	0.07~0.08 (1.9~2.1)	

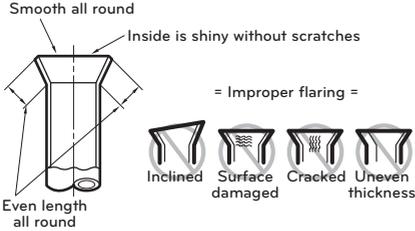
NOTE

- Temper grade of pipe: Annealed.



Check

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

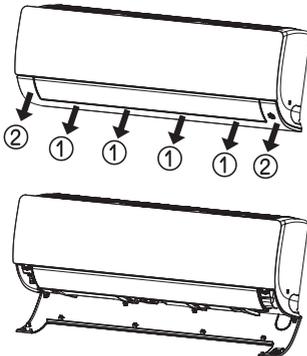


NOTE

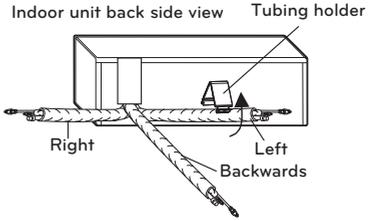
- When flared joints are reused indoors, the flare part shall be re-fabricated.

Connecting the Piping

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



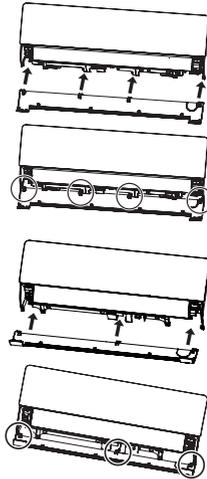
- 3 Pull back the tubing holder.
- 4 Remove pipe port cover and positioning the tubing



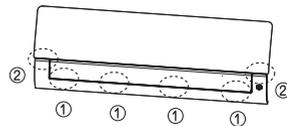
* The feature can be changed according to type of model.

Assembly of chassis cover

- 1 Insert 4 hooks of the chassis cover into gap of the chassis certainly.



- 2 Push the 6 point hook to assemble chassis cover. Push the chassis cover ① → ②.

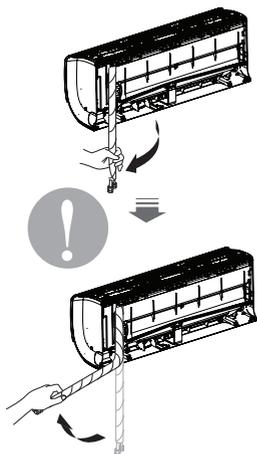


NOTE

To protect the chassis cover bended, assembly chassis cover correctly.

Good case

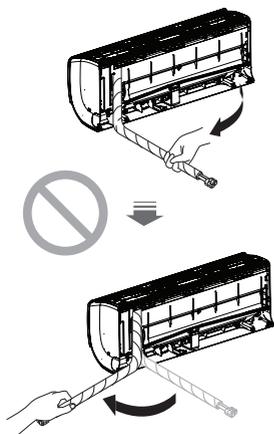
- Press on the tubing cover and unfold the tubing to downward slowly. And then bend to the left side slowly.



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

Bad case

- Following bending case from right to left directly may cause damage to the tubing.



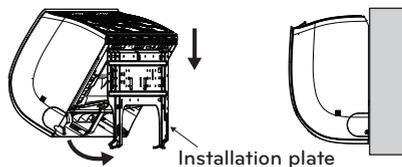
* The feature can be changed according to type of model.

NOTE

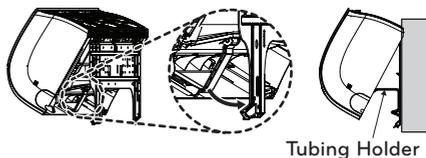
Installation Information. For right piping. Follow the instruction above.

Installation of Indoor Unit

- 1 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



- 2 Unlock the tubing holder from the chassis and mount between the chassis and installation plate in order to separate the bottom side of the indoor unit from the wall.

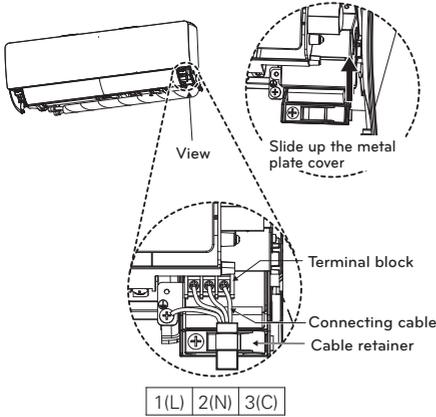


- * The feature can be changed according to the type of model.

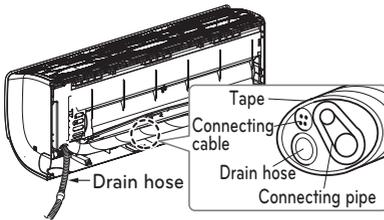
Piping

- 1 Insert the connecting cable through the bottom side of indoor unit and connect the cable (You can see detail contents in 'Connecting the cables' section)

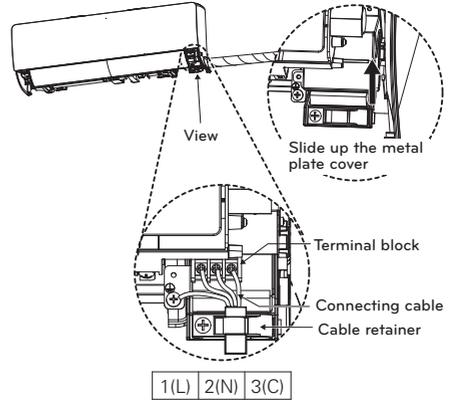
<Left side piping>



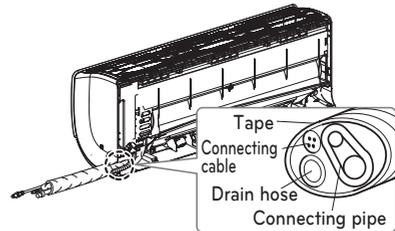
<Left side piping>



<Right side piping>



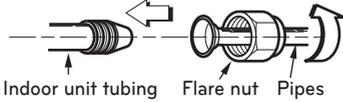
<Right side piping>



- 2 Secure the cable onto the control board with the cable retainer.
- 3 Tape the tubing pipe, drain hose and the connection cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause overflow from the drain pan through the inside of the unit.

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

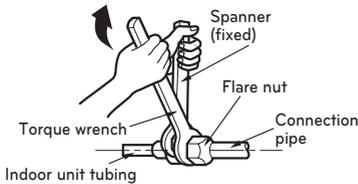
- 1 Align the center of the pipes and sufficiently tighten the flare nut by hand



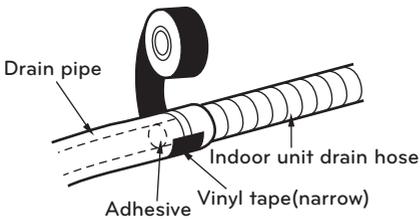
* When Indoor unit (6.6 kW) is connected to the Multi Outdoor unit, use the connector.

- 2 Tighten the flare nut with a wrench.

Outside Diameter		Torque	
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

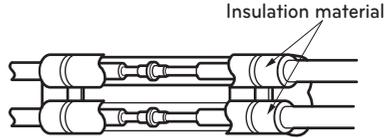


- 3 When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing.

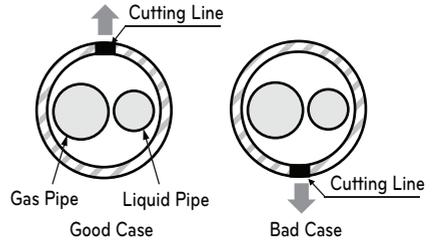


Wrap the insulation material around the connecting portion.

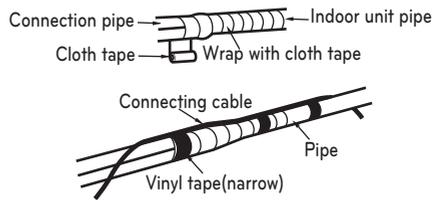
- 1 Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.



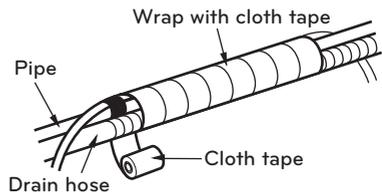
- 2 Set the tubing cutting line upward. Wrap the area which accommodates the rear piping housing section with vinyl tape.



* Tubing cutting line have to be upward.



- 3 For left rear piping, bundle the piping and drain hose together by wrapping them cloth tape over the range within which they fit into the rear piping housing section.



* Wrap the piping of the indoor unit that are visible from the outside with vinyl tape.

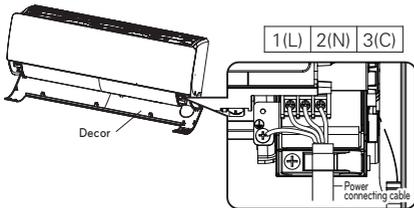
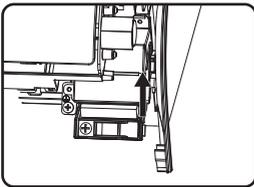
Connecting the Cables

Indoor unit

Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the 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.)

Insert the connecting cable through the bottom side of indoor unit and connect the cable.

- (1) Open the Decor
- (2) Unscrew the screw of C/Box
- (3) Slide up the Metal Plate Cover
- (4) Connect the connecting cable
- (5) After complete connect the cables, should assemble the Metal Plate Cover by screw.



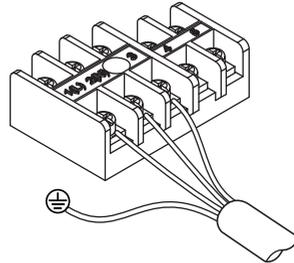
* The feature can be changed according a type of model.

CAUTION

- The circuit diagram is a subject to change without notice.
- The earth wire should be longer than the common wires.
- When installing, refer to the circuit diagram on the chassis cover.
- Connect the wires firmly so that they may not be pulled out easily.
- Connect the wires according to color codes, referring to the wiring diagram.

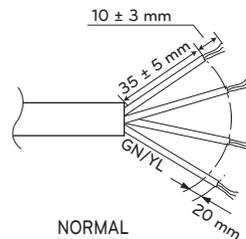
NOTE

The power cord connected to unit should be selected according to the following national wiring regulations. The supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (code designation 60245 IEC 57, H05RN-F)



CAUTION

The connecting cable connected to the indoor and outdoor unit should be complied with the following specifications (This equipment shall be provided with a cord set complying with the national regulation).

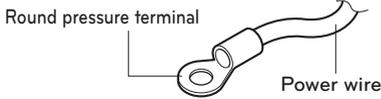


NORMAL
CROSS-SECTIONAL
AREA 0.75 mm²

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer of its service agent.

Precautions when laying power wiring

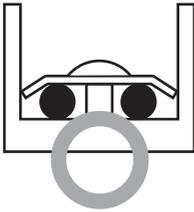
Use round pressure terminals for connections to the power terminal block.



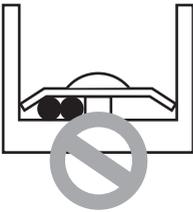
When none are available, follow the instructions below.

- Do not connect wiring of different thicknesses to the power terminal block. (Slack in the power wiring may cause abnormal heat.)
- When connecting wiring which is the same thickness, do as shown in the figure below.

Connect same thickness wiring to both sides.



It is forbidden to connect two to one side.



It is forbidden to connect wiring of different thicknesses.



- For wiring, use the designated power wire and connect firmly, then secure to prevent outside pressure being exerted on the terminal block.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.

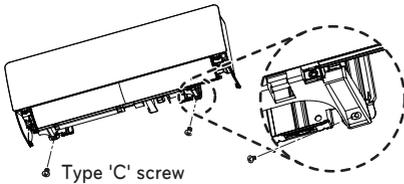
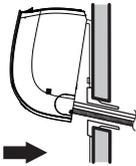
CAUTION

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 3 mm in each active(phase) conductors.
- 10 Open the terminal cover block before connecting the indoor side wire.

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

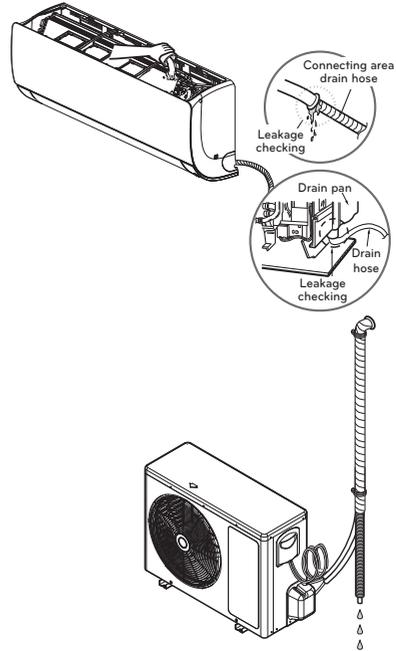
The indoor unit can be dropped from the wall, the indoor unit is not screwed correct position on the install plate.

To avoid the gap between the indoor unit and wall, screw the indoor unit to the install plate correctly.

Checking the Drainage

To check the drainage.

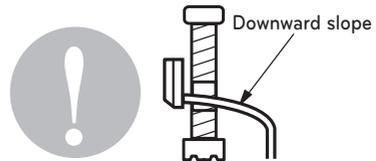
- 1 Pour a glass of water on the evaporator.
- 2 Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.



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

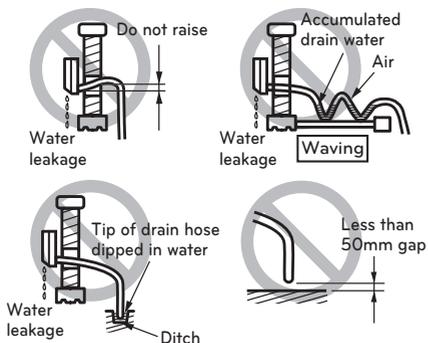
Drain piping

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



24 INSTALLATION

- 2 Do not make drain piping like the following.



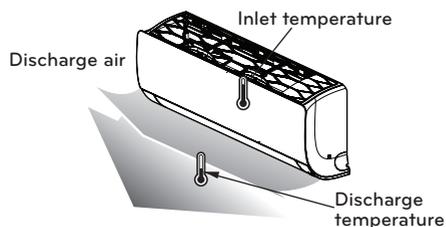
* The feature can be changed according to type of model.

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 8 °C.
- 4 For reference; the gas side pressure at optimum condition is shown on table (cooling)

The air conditioner is now ready to use.



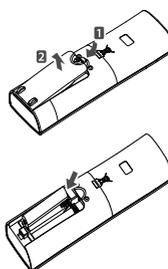
* The feature can be changed according a type of model.

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

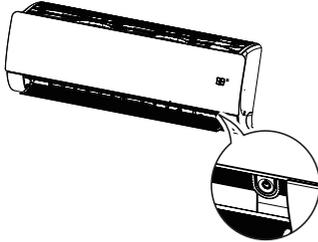
- 1 Remove the battery cover by pulling it according to the arrow direction.
- 2 Insert new batteries making sure that the (+) and (-) of battery are installed correctly.
- 3 Reattach the cover by pushing it back into position.



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.

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 undercharged, and charge should be added.

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.

NOTE

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

! 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.

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 0.5 kg/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.

Heating Only Mode

Heating Only Mode switching function setup

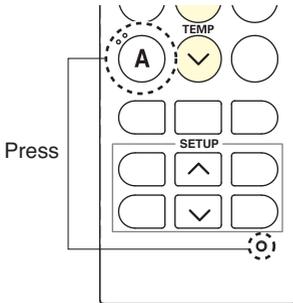
- 1 Supply the power to the unit with no functions active.
- 2 Enter the Installer Code and set the code to 47.
- 3 Press  to select the code No.47 then, check if buzzer beeps.
- 4 Cut the power to the unit.
- 5 Turn back on the power to the unit after 30 seconds.

Heating Only Mode switching function disable setup

- 1 Supply the power to the unit with no functions active.
- 2 Enter the Installer Code and set the code to 48.
- 3 Press  to select the code No.48 then, check if buzzer beeps.
- 4 Cut the power to the unit.
- 5 Turn back on the power to the unit after 30 seconds.

* How to enter the installer mode

Press Reset Button and 'A' Button ()



NOTE

- Once the function is set up, Cooling, Dehumidification Auto Change over 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.
- At Heating Only Mode, if the product gets turned off while the wireless remote control is set at other than heating / blowing, the product will not get turned back on. Turn off the product after the wireless remote control is set at heating / blowing and then turn back on.

* How to set the code

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

-  — 10 digit
-  — 1 digit

SMART DIAGNOSIS (Optional)

Diagnosis of operating information

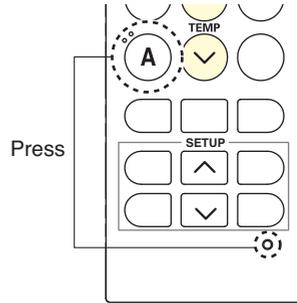
- 1 Enter the Installer Code and set the code to 57.
- 2 Click the "Receive" button on the main screen of LG AC Smart Diagnosis App on your smart phone.
- 3 Press  and hold your smart phone close to the indoor unit.
- 4 Receive the buzzer beeps from indoor unit with your smart phone.
- 5 The diagnosis of operating information will be displayed on the screen of your smart phone.

Diagnosis of error information

- 1 Enter the Installer Code and set the code to 58.
- 2 Click the "Receive" button on the main screen of LG AC Smart Diagnosis App on your smart phone.
- 3 Press  and hold your smart phone close to the indoor unit.
- 4 Receive the buzzer beeps from indoor unit with your smart phone.
- 5 The diagnosis of operating information will be displayed on the screen of your smart phone.

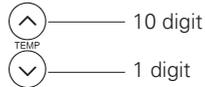
* How to enter the installer mode

Press Reset Button and 'A' Button ()



* How to set the code

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



NOTE

- Be sure to keep ambient noise to a minimum or the smart phone may not correctly receive the buzzer beeps from the indoor unit.
- Initialization of diagnosis data may take approximately 1 minute after supplying the AC power .
- The code No. 57 is used for confirming the diagnosis data which is updated on while the indoor unit is operating
- The code No. 58 is used for confirming the diagnosis data which is the occurred time of Error Code.

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.

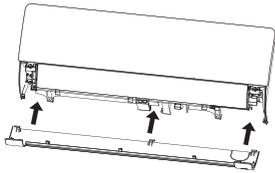


- 3 Remove the decor from the indoor unit.

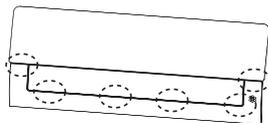


Assemble the decor

- 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.



- 3 Push the nooks to assemble the decor.



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.

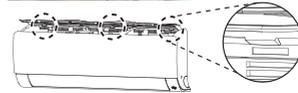


- 3 Hold the knob of the air filter, lift it up slightly and remove it from the unit.

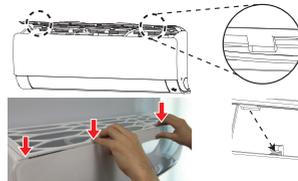


Assemble the air filter

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



- 3 Push down hooks to assemble the air filter.



- 4 Check side of the front grille for the air filter assembled correctly.



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 100 mm or more on the top of the outdoor unit.
- 4 Place the outdoor unit on a raised platform at least 500 mm 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.)

