ENGLISH

INSTALLATION MANUAL AIR CONDITIONER

TYPE : WALL MOUNTED

960-911-11

P/No : MFL67482129

TIPS FOR SAVING ENERGY

Here are some tips that will help you minimize power consumption when you use your air conditioner.

- 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 indoor air quickly.
- 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 to 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 read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.
- 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 Part1 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 earth leakage circuit 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 (piping), and possibly result in explosion and injury.
- It is desirable that the amount of residual oil less than 40 mg/10m.
- Do not turn on the breaker or power under condition that front panel, cabinet, top cover, and control box cover are removed or opened.
  - Otherwise, it may cause fire, electric shock, explosion or death.
- 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

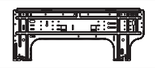
- Install the drain hose to ensure that drain can be securely done.
  - Otherwise, it may cause water leakage.
- Install the product so that the noise or hot wind from the outdoor unit may not cause any damage to the neighbors.
  - Otherwise, it may cause dispute with the neighbors.
- Always inspect 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 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.

* Features may change according to the type of model.

INSTALLATION PARTS

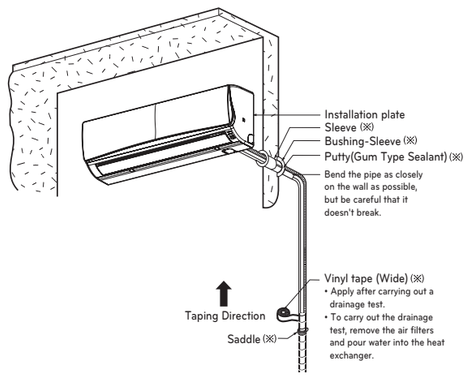
Model	7k	
Name	Shape	Quantity
Installation plate		1
Type "A" screw		5
Type "B" screw		2
Type "C" screw		2
Remote control holder		1

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

INDOOR UNIT

INSTALLATION MAP



* Features may change according to the type of model.

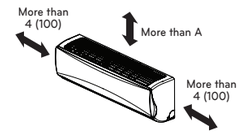
NOTE

- You should purchase the installation parts.
  - (※) : Installation parts

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 the unit.
- Make sure that condensation drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the gap between a wall and the left (or right) of the unit is more than 4in (100mm). The unit should be installed as high as possible on the wall, allowing a minimum of "A" from ceiling.
- Use a metal detector to locate studs to prevent unnecessary damage to the wall.



Unit : inch (mm)

Gap [in (mm)]	Capacity (Btu/h)
	7k
"A"	5 (120)

* Recommended height 6.5ft from the floor.

* Features may change according to the type of model.

NOTE

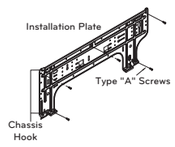
Remove obstructions to prevent blockage of airflow path.

Fixing Installation Plate

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

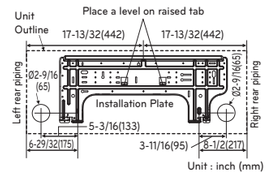
1 Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.
  - Mount the installation plate horizontally by aligning the centerline using Horizontal meter.

<7k>



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.

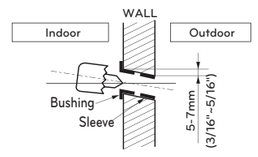
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Unit : inch (mm)

Drill a Hole in the Wall

- Drill the piping hole with a Ø2-9/16"(65mm) hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.

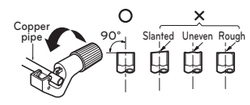


Flaring Work

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

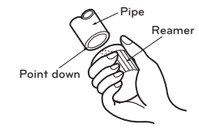
Cut the pipes and the cable

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 1.5m longer than the pipe length.



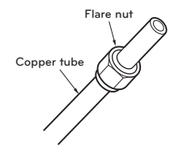
Burrs removal

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

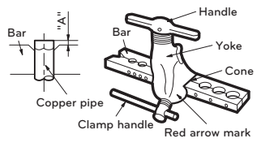
- Remove flare nuts attached to indoor and outdoor units, then put them on the pipe/tube which have completed its burr removal.
  (not possible to put them on after finishing flare work)



Flaring work

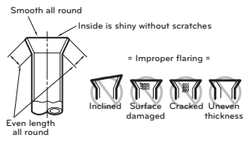
1 Firmly hold copper pipe in a bar with the dimension shown in table below.
2 Carry out flaring work with the flaring tool.

Outside diameter		A	Thickness
mm	inch	mm	mm
Ø6.35	1/4"	1.1~1.3	0.7
Ø9.52	3/8"	1.5~1.7	0.8
Ø12.7	1/2"	1.6~1.8	0.8
Ø15.88	5/8"	1.6~1.8	1.0



Check

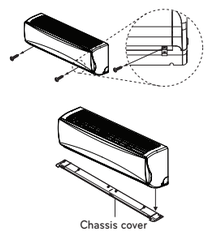
1 Compare the flared work with the figures given below.
2 If a flared section is defective, cut it off and do flaring work again.



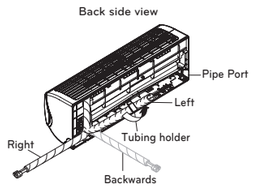
Connecting the Piping

1 Pull the screw caps at the bottom of the indoor unit
2 Remove the chassis cover from the unit by loosing "A" screws.

Qty.	Capacity (Btu/h)
	7k
"A"	2



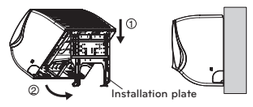
3 Pull back the tubing holder.
4 Remove the pipe port cover and position the piping.



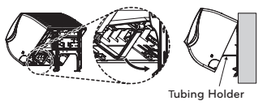
* Features may change according to the type of model.

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.

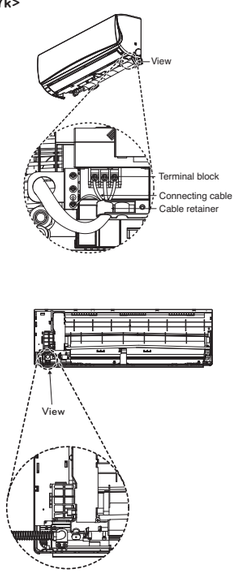


* Features may change according to the type of model.

Piping

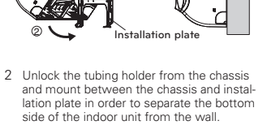
1 Raise the cover of terminal block.
2 Insert the connecting cable through the bottom side of indoor unit and connect the cable. (You can see detail contents in 'Connecting the cables' section.)
3 Secure the cable onto the control board with the cable retainer.

<7k>



4 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.

<Left side piping>



NOTE

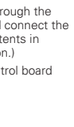
Insert the drain hose at left side when you use left side piping type.

<Right side piping>

* Features may change according to the 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.

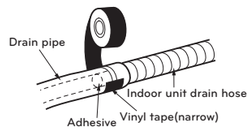


CAUTION

If the extension drain hose is routed inside the room, insulate the hose with an insulation material* so that dripping from sweating (condensation) could not damage furniture or floors.

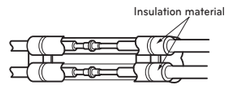
- Foamed polyethylene or equivalent is recommended.

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

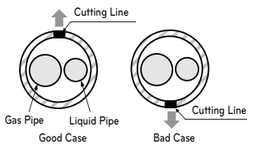


Wrap the insulation material around the connecting portion.

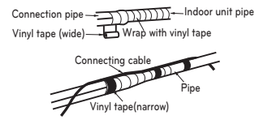
1 Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.



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.



2 Do not make drain piping like the following.

* Features may change according to the type of model.

Test Running

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

Prepare remote controller

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

Good case

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

* Features may change according to the type of model.

Bad case

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

* Features may change according to the type of model.

CAUTION

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

CAUTION

- Secure the pipe by using the tubing cover.
- Do not strongly press the refrigerant pipes onto the bottom frame.
- Do not strongly press the refrigerant pipes on the front grille, either.

4 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.

<Left side piping>

NOTE

Insert the drain hose at left side when you use left side piping type.

<Right side piping>

* Features may change according to the 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.

CAUTION

If the extension drain hose is routed inside the room, insulate the hose with an insulation material* so that dripping from sweating (condensation) could not damage furniture or floors.

- Foamed polyethylene or equivalent is recommended.

3 Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section.

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.

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.

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

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

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.

Drain piping

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

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 ⓞ 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 ⓞ to select the code No. 43 then, check if buzzer beeps.
4 Set the code to 46 and press ⓞ then, check if buzzer beeps.
5 Cut the power to the unit.
6 Turn back on the power to the unit after 30 seconds.

* **How to enter the installer mode**
Press Reset Button and SURGE Button (↻).

* **How to set the code**
Set the code you want by pressing TEMP button (⊗) and press ⓞ.

(∧) TEMP (∨)
—10 digit
—1 digit

CAUTION

- 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.
- Entire lock or mode lock cannot be set if heating and automatic operation is set through central controller