



OWNER'S MANUAL

AIR CONDITIONER

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

TYPE : Ceiling Concealed Duct



P/NO : MFL67850903

www.lg.com

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.
- The product shall be installed according to the Wiring regulations of the corresponding country.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

Installation

- Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit. There is risk of fire or electric shock.
- For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center. Do not disassemble or repair the product. There is risk of fire or electric shock.
- Always ground the product. There is risk of fire or electric shock.
- Install the panel and the cover of control box securely. There is risk of fire or electric shock.
- Always install a dedicated circuit and breaker. Improper wiring or installation may cause fire or electric shock
- Use the correctly rated breaker or fuse. There is risk of fire or electric shock.
- Do not modify or extend the power cable. There is risk of fire or electric shock.
- Do not install, remove, or re-install the unit by yourself (customer). There is risk of fire, electric shock, explosion, or injury.
- Be cautious when unpacking and installing the product. Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.
- For installation, always contact the dealer or an Authorized Service Center. There is risk of fire, electric shock, explosion, or injury.
- Do not install the product on a defective installation stand. It may cause injury, accident, or damage to the product.
- Be sure the installation area does not deteriorate with age. If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.
- Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open. Moisture may condense and wet or damage furniture.

Operation

- Take care to ensure that power cable could not be pulled out or damaged during operation. There is risk of fire or electric shock.
- Do not place anything on the power cable. There is risk of fire or electric shock.
- Do not plug or unplug the power supply plug during operation. There is risk of fire or electric shock.
- Do not touch(operate) the product with wet hands. There is risk of fire or electrical shock.
- Do not place a heater or other appliances near the power cable. There is risk of fire and electric shock.
- Do not allow water to run into electric parts. It may cause There is risk of fire, failure of the product, or electric shock.
- Do not store or use flammable gas or combustibles near the product. There is risk of fire or failure of product.
- Do not use the product in a tightly closed space for a long time. Oxygen deficiency could occur.
- When flammable gas leaks, turn off the gas and open a window for ventilation before turn the product on. Do not use the telephone or turn switches on or off. There is risk of explosion or fire
- If strange sounds, or small or smoke comes from product. Turn the breaker off or disconnect the power supply cable. There is risk of electric shock or fire.
- Stop operation and close the window in storm or hurricane. If possible, remove the product from the window before the hurricane arrives. There is risk of property damage, failure of product, or electric shock.
- Do not open the inlet grill of the product during operation.(Do not touch the electrostatic filter, if the unit is so equipped.) There is risk of physical injury, electric shock, or product failure.
- When the product is soaked (flooded or submerged), contact an Authorized Service Center. There is risk of fire or electric shock.
- Be cautious that water could not enter the product. There is risk of fire, electric shock, or product damage.
- Ventilate the product from time to time when operating it together with a stove, etc. There is risk of fire or electric shock.
- Turn the main power off when cleaning or maintaining the product. There is risk of electric shock.
- When the product is not be used for a long time, disconnect the power supply plug or turn off the breaker. There is risk of product damage or failure, or unintended operation.
- Take care to ensure that nobody could step on or fall onto the outdoor unit. This could result in personal injury and product damage.

CAUTION

Installation

- Always check for gas (refrigerant) leakage after installation or repair of product. Low refrigerant levels may cause failure of product.
- Install the drain hose to ensure that water is drained away properly. A bad connection may cause water leakage.
- Keep level even when installing the product. To avoid vibration or water leakage.
- Do not install the product where the noise or hot air from the outdoor unit could damage the neighborhoods. It may cause a problem for your neighbors.
- Use two or more people to lift and transport the product. Avoid personal injury.
- Do not install the product where it will be exposed to sea wind (salt spray) directly. It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.

Operation

- Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.) This could harm to your health.
- Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system. There is risk of damage or loss of property.
- Do not block the inlet or outlet of air flow. It may cause product failure.
- Use a soft cloth to clean. Do not use harsh detergents, solvents, etc. There is risk of fire, electric shock, or damage to the plastic parts of the product.
- Do not touch the metal parts of the product when removing the air filter. They are very sharp! There is risk of personal injury.
- Do not step on or put anything on the product. (outdoor units) There is risk of personal injury and failure of product.
- Always insert the filter securely. Clean the filter every two weeks or more often if necessary. A dirty filter reduces the efficiency of the air conditioner and could cause product malfunction or damage.
- Do not insert hands or other objects through the air inlet or outlet while the product is operated. There are sharp and moving parts that could cause personal injury.
- Do not drink the water drained from the product. It is not sanitary and could cause serious health issues.
- Use a firm stool or ladder when cleaning or maintaining the product. Be careful and avoid personal injury.
- Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries. There is risk of fire or explosion
- Do not recharge or disassemble the batteries. Do not dispose of batteries in a fire. They may burn or explode.
- If the liquid from the batteries gets onto your skin or clothes, wash it well with clean water. Do not use the remote if the batteries have leaked. The chemicals in batteries could cause burns or other health hazards.
- If you eat the liquid from the batteries, brush your teeth and see doctor. Do not use the remote if the batteries have leaked. The chemicals in batteries could cause burns or other health hazards.

TABLE OF CONTENTS

2 TIPS FOR SAVING ENERGY

3 IMPORTANT SAFETY INSTRUCTIONS

7 BEFORE USE

- 7 Preparing for operation
- 7 Usage
- 7 Cleaning and maintenance
- 7 Service

8 PRODUCT INTRODUCTION

- 8 Name and function of parts
- 9 Wired Remote Controller
- 10 Wireless Remote Controller (Accessory)

11 OPERATING INSTRUCTIONS

- 11 Standard Operation - Standard Cooling
- 12 Standard Operation - Dehumidification Mode
- 13 Standard Operation - Auto Operation Mode
- 14 Standard Operation - Fan Mode
- 15 Function Setting - Fan Speed Selection
- 16 Standard Operation - Temperature Setting/Room Temperature Check
- 17 Function setting - Child Lock

18 MAINTENANCE AND SERVICE

- 19 When the air conditioner is not going to be used for a long time.
- 19 Operation Tips!
- 20 Troubleshooting Tips! Save time and money!

BEFORE USE

Preparing for operation

- Contact an installation specialist for installation.
- Use a dedicated circuit.

Usage

- Being exposed to direct airflow for an extended period of time could be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for extended periods of time.
- Due to the possibility of oxygen deficiency, ventilate the room when used together with stoves or other heating devices.
- Do not use this air conditioner for non-specified special purposes (e.g. preserving precision devices, food, pets, plants, and art objects). Such usage could damage the items.

Cleaning and maintenance

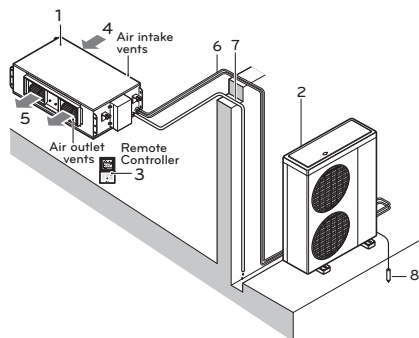
- Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
- Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
- When cleaning the unit, first make sure that the power and breaker are turned off. The fan rotates at a very high speed during operation. There is a possibility of injury if the unit's power is accidentally triggered on while cleaning inner parts of the unit.

Service

For repair and maintenance, contact your authorized service dealer.

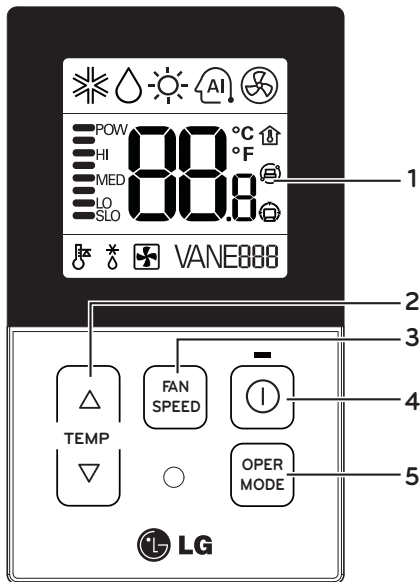
PRODUCT INTRODUCTION

Name and function of parts



- 1 Indoor unit
 - 2 Outdoor unit
 - 3 Remote controller
 - 4 Inlet air
 - 5 Discharge air
 - 6 Refrigerant piping, connection electric wire
 - 7 Drain pipe
 - 8 Ground wire
- wire to ground outdoor unit to prevent electrical shocks.

Wired Remote Controller



- 1 Operation Display Panel
- 2 Temperature Control Button
- 3 Fan Speed Button
- 4 On/Off Button
- 5 Operation Mode select Button

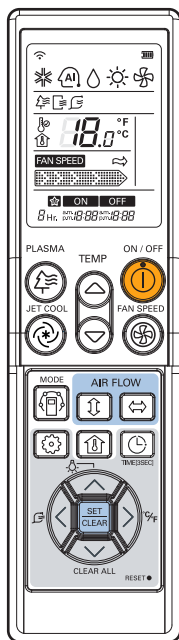
* Some functions may not be operated and displayed depending on the product type.

! NOTE

- Display temperature can be different from actual room temperature if the remote controller is installed at the place where sun-rays are falling directly or the place nearby heat source.
- The actual product can be different from above contents depending upon model type.
- When using simultaneous operation system, whenever press remote controller button, system will approximately operate after 1~2 minutes.

Wireless Remote Controller (Accessory)

This air-conditioner is equipped with wired remote controller basically. But if you want to be available with wireless remote controller, you pay for it.



PQRWRCDF0

! CAUTION

- Aim at the signal receiver on the wired remote controller so as to operate.
- The remote control signal can be received at a distance of up to about 7m.
- Be sure that there are no obstructions between the remote controller and the signal receptor.
- Do not drop or throw the remote controller.
- Do not place the remote controller in a location exposed to direct sunlight, or near the heating unit, or any other heat source.
- Block a strong light over the signal receptor with a curtain or etc. so as to prevent the abnormal operation. (ex : electronic quick start, ELBA, inverter type fluorescent lamp)

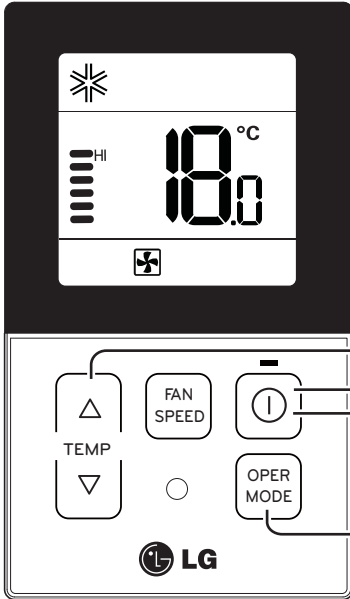
! NOTE

- For more details refer to the Wireless Remote Control Accessory manual.
- The actual product can be different from above contents depending upon model type.
- The wireless remote controller does not operate When using simultaneous operation system.

OPERATING INSTRUCTIONS

Standard Operation - Standard Cooling

It cools the room by comfortable and clean wind.



1 Cooling operation will begin if you press the  button.

2 Press the temperature button and set the desired room temperature lower than the current room temperature.



A click of the button will increase the desired temperature by 1°C or 1°F.

A click of the button will decrease the desired temperature by 1°C or 1°F.

- Setting temp range : 18°C~30°C (64°F~86°F)

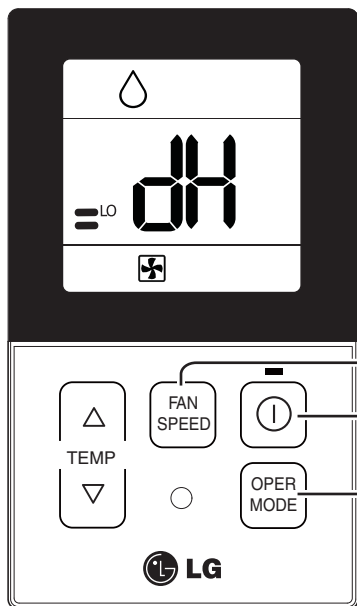
- If the desired temperature is set higher than the current room temperature, the cooling function will not begin and just the blowing operation will continue.

3 If you press the mode button during the operation, the operation mode will be changed in the order of cooling, dry(dehumidification), heating, auto-operation and fan operation. If the product is a cooling-only model, the operation mode will be changed in the order of cooling, dry(dehumidification), auto-operation and fan operation.

4 If you press the  button, the cooling operation will stop.

Standard Operation - Dehumidification Mod

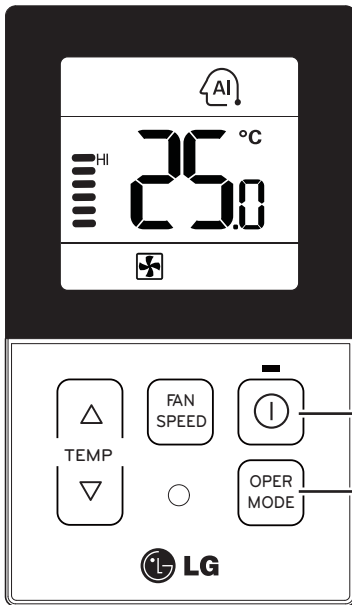
It removes humidity while air-cooling weakly.



- 1 After operating the product by pressing the  button, set up the dry (Dehumidification) by pressing the  button.
- 2 When the dry operation is selected, "dh" will be shown on the display window as shown on the left side.
 - The temperature setting can not be adjusted during operation this mode.
- 3 Press the  button to select airflow rate [LO→ MED→HI].
 - The initial wind powerfulness of humidity removal drive is 'weak'.

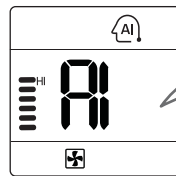
- In rainy season or high humidity climate, it is possible to operate simultaneously dehumidifier and cooling mode to remove humidity effectively.
- The menu item of wind powerfulness might not be partially selected according to the product.

Standard Operation - Auto Operation Mode



- 1 After operating the product by pressing the  button, set up the auto operation by pressing the  button.
- 2 When desired the set temperature is lower than the room temperature during the auto operation
=> Cooling operation

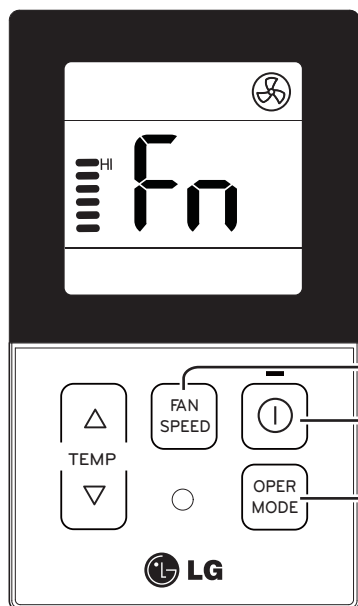
- Setting temp range : 18°C~30°C (64°F~86°F)
- 3 "Auto Operation Mode"
For the products with the exclusive purpose of cooling only, "AI" is indicated at the temperature display section.



- ⌋ When cold
- ! When cool
- ☐ When appropriate
- ! When warm
- ⌋ When hot

Standard Operation - Fan Mode

It blows the air as it is in the indoor, not the cold wind.

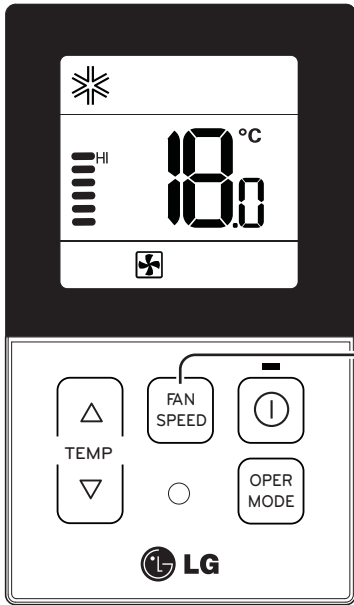


- 1 After operating the product by pressing the button, set up the fan operation by pressing the button.
- 2 When the dry operation is selected, "Fn" will be shown on the display window as shown on the left side.
- The temperature setting can not be adjusted during operation this mode.
- 3 Press the button to select airflow rate [LO→MED→HI].
When running ventilation, compressor of AHU doesn't work.

- Ventilation drive does not release cool wind but general fan
- Because it releases the wind that has no temperature difference from the room, it functions to circulate the inside air.
- The menu item of wind powerfulness might not be partially selected according to the product.

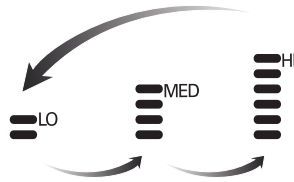
Function Setting - Fan Speed Selection

It blows the air as it is in the indoor, not the cold wind.



- 1 Select the proper fan speed which you want by pressing the  button on the remote controller.
 - If you press the  button, the fan speed will change in the order of [LO→MED→HI].
 - The initial fan speed is "Hi".
 - If the product is not compatible with the fan speed Control, it will not function as per your selection.

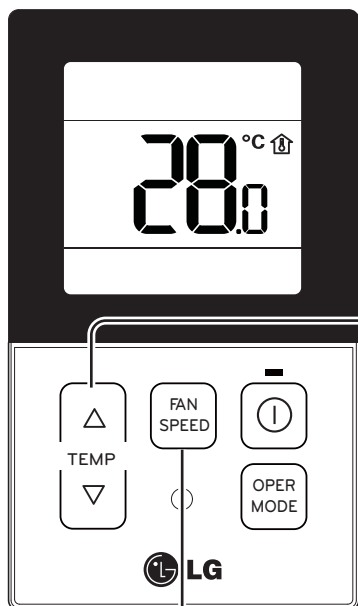
Fan Speed Selection in Cooling Operation



Fan Speed Selection in Heating, Dry, Fan, Auto-Operation



Standard Operation - Temperature Setting/Room Temperature Check



Temperature Setting

- 1 We can simply adjust the desired temperature.
☐ Press the buttons to adjust the desired temperature.

- : Increase 1°C or 2°F per one time pressing
- : Decrease 1°C or 2°F per one time pressing

- Room temp : Indicate the current room temperature.
- Set temp : Indicate the temperature that user want to set.
- * Depend on what kind of controller, the desired temperature can be adjusted at 0.5°C or 1°F.

Cooling operation:

- The cooling mode doesn't work if desired temperature is higher than room temperature Please lower the desired temperature.

Room Temperature Check

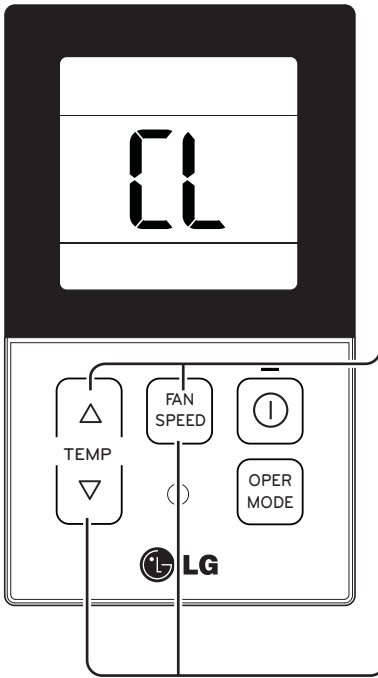
- 1 When prssing the button of the remote controller Adjustment section for approx. 3 seconds, the room Temperature will be indicated for about 5 seconds Before resuming to the previous display panel.

In the case of the room temperature display, the room Temperature can be different in accordance with the Setting of the remote controller's room temperature Detection selection.

- For air-cooling drive, from 18°C to 30°C, and for heating drive, from 16°C to 30°C, you can select desired temperature.
- 5°C is proper for the difference between room and outside temperature.

Function setting - Child Lock

It is the function to use preventing children or others from careless using.



1 During the operation, when pressing the button and button for approx. 3 seconds, the 'Child Lock' Function can be used.

- At the time of initial setting of the 'Child Lock', the 'CL' Will be indicated approx. 3 seconds at the temperature Display section before resuming to the previous mode. After the setting of the 'CL', if another button is setup, the button can not be recognized as the 'CL' is indicated at the temperature display section for approx. 3 seconds.

2 If the 'CL' function is wanted to be used under the operation standby state, press the button and Button for approx. 3 seconds under the standby mode state and the system will be the 'CL' state.

3 As for the releasing method, when pressing the Button and button for approx. 3 seconds, the 'CL' function can be released.

MAINTENANCE AND SERVICE

CAUTION

Before performing any maintenance, turn off the main power to the system.

Grille, Case and Remote Controller

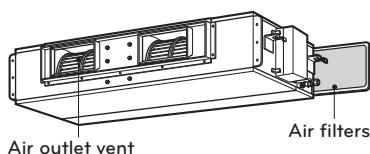
- Turn the system off before cleaning. To clean, wipe with a soft, dry cloth. Do not use bleach or abrasives.

NOTE

- Power supply must be disconnected before cleaning the indoor unit.

Air Filters

The air filters behind the front grille should be checked and cleaned once every 2 weeks or more often if necessary.



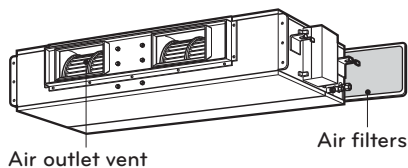
- Never use any of the followings:

Water hotter than 40°C.

Could cause deformation and or discoloration.

Volatile substances.

Could damage the surfaces of the air conditioner.



- Remove the Air filters.

Take hold of the tab and pull slightly forward to remove the filter.

CAUTION

When the air filter is to be removed, do not touch the metal parts of the indoor unit. It may cause an injury.

- Clean dirt from the air filter using a vacuum cleaner or washing with water.

If dirt is conspicuous, wash with a neutral detergent in lukewarm water.

If hot water (40°C or more) is used, it may be deformed.

- After washing with water, dry well in the shade.

Do not expose the air filter to direct sunlight or heat from a fire when drying it.

- Install the air filter.

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

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

- Operate the air conditioner at the following settings for 2 to 3 hours.
Type of operation: Fan operation mode.
This will dry out the internal mechanisms.
- Turn off the breaker.



CAUTION

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

Helpful information

The air filters and your electric bill.

If the air filters become clogged with dust, the cooling capacity will drop, and 6% of the electricity used to operate the air conditioner will be wasted.

When the air conditioner is to be used again.

- Clean the air filter and install it in the indoor unit.
- Check that the air inlet and outlet of the indoor/outdoor unit are not blocked.
- Check that the ground wire is connected correctly. It may be connect to the indoor unit side.

Operation Tips!

Do not overcool the room. This is not good for the health and wastes electricity.	Keep blinds or curtains closed. Do not let direct sunshine enter the room when the air conditioner is in operation.	Keep the room temperature uniform. Adjust the vertical and horizontal airflow direction to ensure a uniform temperature in the room.
Make sure that the doors and windows are shut tight. Avoid opening doors and windows as much as possible to keep the cool air in the room.	Clean the air filter regularly. Blockages in the air filter reduce the airflow and lower cooling and dehumidifying effects. Clean at least once every two weeks.	Ventilate the room occasionally. Since windows are kept closed, it is a good idea to open them and ventilate the room now and then.

Troubleshooting Tips! Save time and money!

Check the following points before requesting repairs or service.... If the malfunction persist, please contact your dealer.

The air conditioner does not operate. - Have you made a mistake in timer operation? - Has the fuse blown or has the circuit breaker been tripped?	The room has a peculiar odor. - Check that this is not a damp smell exuded by the walls, carpet, furniture or cloth items in the room.	It seems that condensation is leaking from the air conditioner. - Condensation occurs when the airflow from the air conditioner cools the warm room air.	Air conditioner does not operate for about 3 minutes when restart. - This is the protector of the mechanism. - Wait about three minutes and operation will begin.
Does not cool or heat effectively. - Is the air filter dirty? See air filter cleaning instructions. - The room may have been very hot when the room air conditioner was first turned on. Allow time for it to cool down. - Has the temperature been set incorrectly? - Are the indoor unit's air inlet or outlet vents obstructed?	The air conditioner operation is noisy. - For a noise that sounds like water flowing. * This is the sound of freon flowing inside the air conditioner unit. - For a noise that sounds like the compressed air releasing into atmosphere. * This is the sound of the dehumidifying water being processed inside the air conditioning unit.	Crack sound is heard. - This sound is generated by the expansion/ constriction of the front panel, etc. due to changes of temperature.	Remote control display is faint, or no display at all. - Are the batteries depleted? - Are the batteries inserted in the opposite (+) and (-) directions?
		Filter sign lamp (LED) is ON. - Cleaning the filter, press the Timer button and ◀ button of wired remote controller at the same time for 3 sec.	

! NOTE

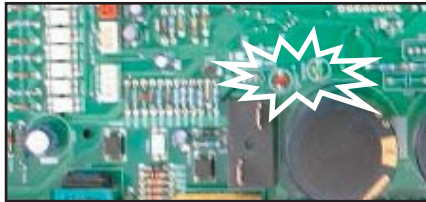
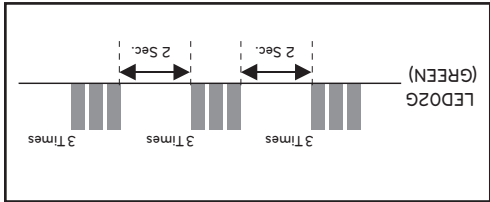
WATER RESISTANT : The outdoor side of this appliance is WATER RESISTANT.
The indoor side is not water resistant and should not be exposed to excess water.



SELF-DIAGNOSIS FUNCTION

Indoor Unit Error

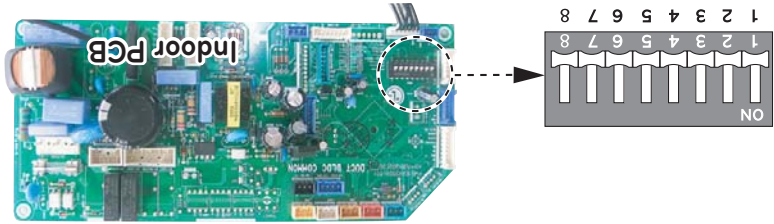
(Ex) Error 03 (Remote controller error)



Error Code	Description	LED 1 (Red)	LED 2 (Green)	Indoor status
01	Indoor Room sensor error	0	1 time 1	OFF
02	Indoor in-pipe sensor error	0	2 times 1	OFF
03	Remote controller error	0	3 times 1	OFF
04	Drain pump error	0	4 times 1	OFF
05	Communication error indoor and outdoor	0	5 times 1	OFF
06	Indoor out-pipe sensor error	0	6 times 1	OFF
09	EEPROM error (indoor)	0	9 times 1	OFF
10	BLC motor fan lock (indoor)	1 time 1	0	OFF

* Because remote controller turn off when occur ERROR in simultaneous operation system, it should check LED blinks of outdoor in order to confirm error code.
 * Repeatedly after LED1 is turned on and off as the Error code number of tens digit, LED2 is turned on and off as the Error code number of single-digit.

DIP SWITCH SETTING



Function	Description	Setting Off	Setting On	Default
SW3 Group Control	Selection of Master or Slave	Master	Slave	Off
SW4 Dry Contact Mode	Selection of Dry Contact Mode	Selection of Manual or Auto operation Mode	Auto	Off
SW5 Installation	Fan continuous operation	Continuous operation Removal	Working	Off

[Table. 1]

JBNO218GHLA0	Setting Value	2.5(25)	4(39)	6(59)	8(78)	10(98)
		Static Pressure[mmaq(Pa)]				
	100	12.8				
	105	13.9				
	110	15.2	12.7			
	115	16.5	14			
	120	17.8	15.3			
	125		16.5			
	130		17.8			
	135					
	140					
	145					

JBNO24GGLA0	Setting Value	2.5(25)	4(39)	6(59)	8(78)	10(98)
		Static Pressure[mmaq(Pa)]				
	80	14.8				
	90	19	14.4			
	100	23.3	19.7	13.9		
	110	26.9	24.3	19.8		
	120	31.2	28.2	25.2		
	130	34.9	32.4	29.5		

JBNO36GGLA0	Setting Value	4(39)	6(59)	8(78)	10(98)	
		Static Pressure[mmaq(Pa)]				
	100	20.8				
	105	23.2	19.5			
	110	26	21.5			
	115		23.5			
	120		26.3			
	125					
	130					
	135					

JBNO42GRLA0	Setting Value	6(59)	8(78)	10(98)	12(118)	
		Static Pressure[mmaq(Pa)]				
	85	31.5				
	90	36.3	29.8			
	95	41.3	34.5	28.4		
	100	45.4	39.7	33.5		
	105		44.1	38.6		
	110					
	115					

JBNO48GRLA0	Setting Value	6(59)	8(78)	10(98)	12(118)	
		Static Pressure[mmaq(Pa)]				
	85	31.5				
	90	36.3	29.8			
	95	41.3	34.5	28.4		
	100	45.4	39.7	33.5		
	105		44.1	38.6		
	110					
	115					

JBNO54GRLA0	Setting Value	6(59)	8(78)	10(98)	12(118)	14(137)
		Static Pressure[mmaq(Pa)]				
	95	41.3				
	100	45.4	39.7			
	105	49.5	44.1	38.6		
	110		48.5	44.2	49.8	
	115					
	120					

* JBNO42GRLA0 / JBNO48GRLA0 As far as possible do not set ESP 82,83



1. Be sure to set the value referring table 1. Unexpected set value will cause mal-function.
2. Table 1 is based at 230V. According to the fluctuation of voltage, air flow rate varies.

Installer Setting - E.S.P.

This is the function that decides the strength of the wind for each wind level and because this function is to make the installation easier.

- If you set ESP incorrectly, the air conditioner may malfunction.
- This setting must be carried out by a certificated-technician.

- 1 When pressing the button and button simultaneously for more than 3 seconds, the system will be entered into the installer setting mode.
- After entering into the installer setting mode, select the E.S.P code value by pressing the button.
* E.S.P code value : 03
- 2 Select the desired air flow rate with the button. Whenever pressing the button, [Lo→Med→Hi] will be indicated.
- 3 Select the desired air flow rate value with the temperature up(▲), down(▼) button.
* E.S.P value range : 0 ~ 255
- E.S.P value will be indicated at the upper right section of the display window.
- 4 When pressing the button, currently established E.S.P value will be set up.
- 5 When pressing the button and button simultaneously for more than 3 seconds after the setting has been completed, the setting mode will be released.
- If there isn't any button input for more than 25 seconds, the installer setting mode will also be released.

- Precution shall be taken not to alter the E.S.P value corresponded to each air flow section.
- E.S.P value can be varied according to the products.
- In the case of going to the next air flow rate pressing the fan-speed button during the setup of the E.S.P value, the E.S.P value of previous air flow rate will be maintained by remembering the E.S.P value prior to the shift.

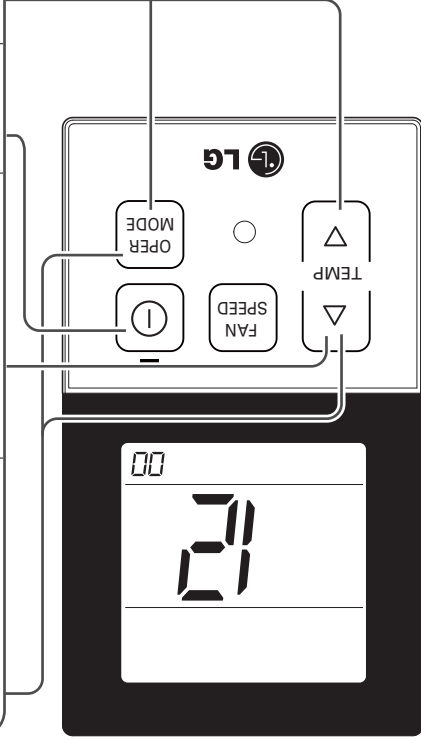
Installer Setting-Celsius / Fahrenheit Switching

This function is used for switching the display between Celsius and Fahrenheit.
(Optimized only for U.S.A)

- 1 When pressing the  button and  button simultaneously for more than 3 seconds, the system will be entered into the installer setting mode.
- After entering into the installer setting mode, select the ceiling height setting code value by pressing the oper-mode button.
* Celsius/Fahrenheit setting code value : 07
- 2 Select the desired setting value with the temperature up(▲), down(▼) button.

*Setting value
00:Celsius
01:Fahrenheit


- 3 When pressing  button, currently established celsius/Fahrenheit setting value will be set up.
- 4 When pressing the  button and  button simultaneously for more than 3 seconds after the setting has been completed, the setting mode will be released.
- If there isn't any button input for more than 25 seconds, the installer setting mode will also be released.



Installer Setting-Remote Controller Master/Slave Setup

It is a function for settings in group control, or 2-remote controller control.

1 When pressing the button and button simultaneously for more than 3 seconds, the system will be entered into the installer setting mode.

- After entering into the installer setting mode, select the ceiling height setting code value by pressing the oper-mode button.

* Remote controller master/slave setting code value : 07

2 Select the desired setting value with the temperature up() , down() button.

07

01

Code value

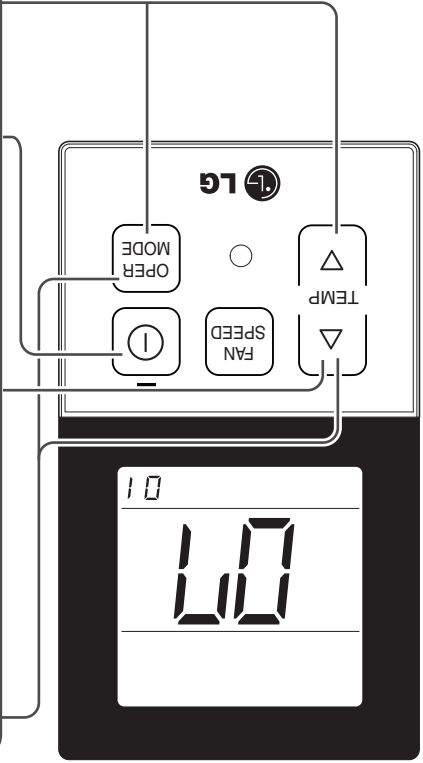
Value

*Setting value
00:Slave
01:Master

3 When pressing the button, currently established static pressure value will be set up.

4 When pressing the button and button simultaneously for more than 3 seconds after the setting has been completed, the setting mode will be released.

- If there isn't any button input for more than 25 seconds, the installer setting mode will also be released.



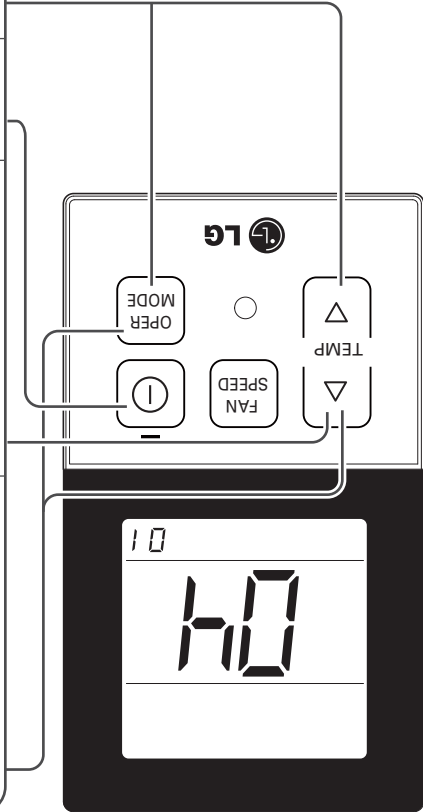
Remote controller	Function
Master	Indoor unit operates based on master remote controller at group control. (Master is set when delivering from the warehouse.)
Slave	Setup all remote controllers except one master remote controller to slave at group control

* Refer to the 'group control' part for details

- When controlling in groups, basic operation settings, airflow strength weak/medium/strong, lock setting of the remote controller, time settings, and other functions may be restricted.

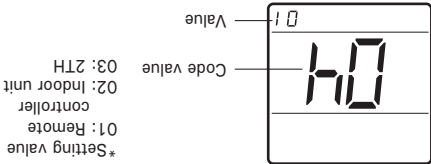
Installer Setting -Thermistor

This is the function to select the temperature sensor to judge the room temperature.



1 When pressing the button and button simultaneously for more than 3 seconds, the system will be entered into the installer setting mode.
- After entering into the installer setting mode, select the thermistor sensor setting code value by pressing the button.
* Thermistor sensor selection code value : 04

2 Select the desired setting value with the temperature up() , down() button.



3 When pressing the button, currently established thermistor sensor location will be set up.

4 When pressing the button and button simultaneously for more than 3 seconds after the setting has been completed, the setting mode will be released.
- If there isn't any button input for more than 25 seconds, the installer setting mode will also be released.

* As the characteristic of the '2TH' function can be different in accordance with the products, refer to the product instruction manual for its detail.

Installer Setting - Setting Address of Central Control

It's the function to use for connecting central control.
Please refer to central controller manual for the details

1 When pressing the  button and  button simultaneously for more than 3 seconds, the system will be entered into the installer setting mode.

- After entering into the installer setting mode, select the central control address setting code value by pressing the  button.

* Setting address of central control code value : 02

2 Set up the group number and indoor unit with the temperature adjustment(, ) buttons.

For example, when setting as
[Group number = 2 Indoor number = 3]
it will be displayed as shown in the left figure.

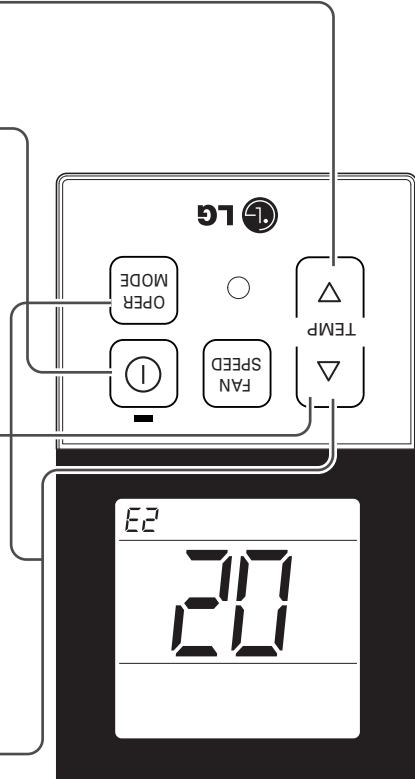


Group number
Indoor unit number

3 When pressing the  button, the system will be set up with the address value which has been established at present.

4 When pressing the  button and  button simultaneously for more than 3 seconds after the setting has been completed, the setting mode will be released.

- If there isn't any button input for more than 25 seconds, the installer setting mode will also be released.



The diagram shows a remote controller with buttons labeled: TEMP (with up/down arrows), FAN SPEED, OPER MODE, and a power button. Lines connect these buttons to a central control unit. The central control unit has a display showing '23' and '02'.

- If you connect the indoor unit to the central controller, you should set the network address of the indoor unit so that the central controller could recognize it.

- The center-control address is composed of the group number and the indoor-unit number.

NOTE

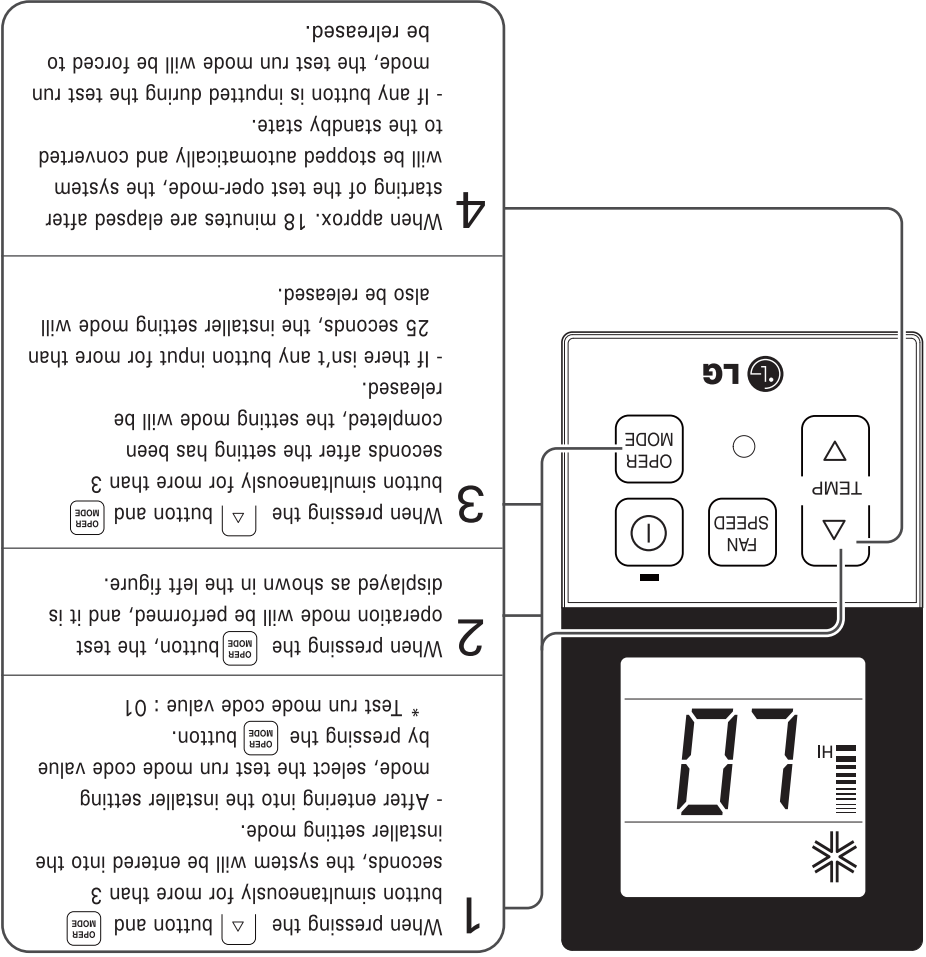
The remote controller displays 'HL' if central controller has locked the remote controller.

* In the case when the lock is set up at the central controller, 'HL' will be indicated on the display window of the wired remote controller and the indoor unit will not be controlled by the remote controller.

OPTIONAL OPERATION

Installer Setting - Test Run Mode

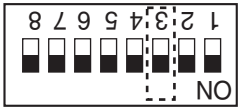
After installing the product, you must run a Test Run mode.
For details related to this operation, refer to the product manual.



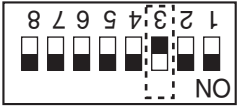
What is the test run mode??

- This means the operation of the product under the cooling, strong wind, and Comp on state without performing room temperature control in order to confirm the installed state during the product installation.

- For ceiling type cassette and duct product group, change the switch setting of the indoor PCB.



(Factory default setting)



- For wall-mount type and stand type product, change the master/slave setting with the wireless remote controller. (Refer to wireless remote controller manual for detail)

* When installing 2 remote controllers to one indoor unit with event communication function, set the master/slave of the remote controller. (Refer to remote controller master/slave selection)

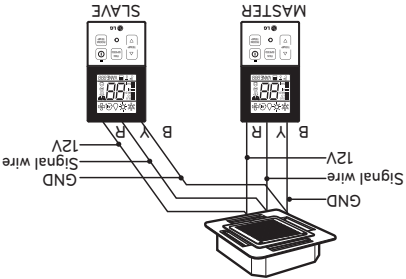
When controlling the group, some functions excluding basic operation setting, fan level Min/Mid/Max, remote control lock setting and time setting may be limited.

3 When installing more than 2 wired remote controllers to one air conditioner, please connect as the right picture.

- When installing more than 2 units of wired remote controller to one air conditioner, set one wired remote controller as master and the others all as slaves, as shown in the right picture.

- You cannot control the group as shown in the right for some products.

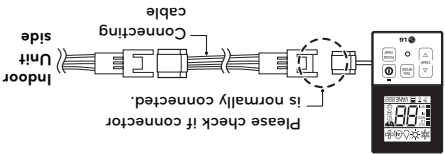
- Refer to the product manual for more detail.



<When simultaneously connecting 2 sets of wired remote controller>

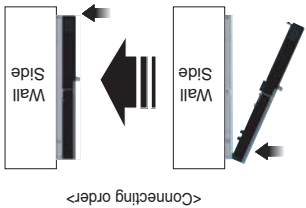
- When controlling in groups, set the master/slave of the remote controller. Refer to installer setting section on how to set master/slave for more detail.

3 Please connect indoor unit and remote controller using connection cable.

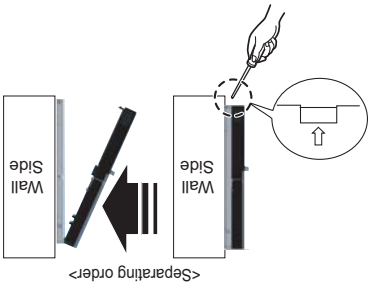


4 Please use extension cable if the distance between wired remote controller and indoor unit is more than 10m.
5 Please fix remote controller upper part into the wall, as the picture below, and then, connect with setup board by pressing lower part.

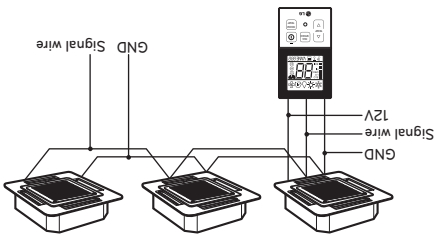
- Please connect not to make a gap at the remote controller and setup board's upper and lower, right and left part.



When separating remote controller from setup board, as the picture below, after inserting into the lower separating hole clockwise, remote controller is separated. - There are two separating holes. Please individually separate one at a time. - Please be careful not to damage the inside components when separating.



Group Control



1 When installing more than 2 units of air conditioner to one wired remote controller, please connect as the right figure.
- If it is not event communication indoor unit, set the unit as slave.
- Check for event communication through the product manual.
2 When controlling multiple indoor units with event communication function with one remote controller, you must change the master/slave setting from the indoor unit. - Indoor units, the master/slave configuration of the product after completion of indoor unit power 'OFF' and then 'ON' the power after 1 minutes elapsed sign up.

- When installing the wired remote controller, do not bury it in the wall. (It can cause damage in the temperature sensor.)
- Do not install the cable to be 50m or above.
- (It can cause communication error.)
- When installing the extension cable, check the connecting direction of the connector of the remote controller side and the product side for correct installation.
- If you install the extension cable in the opposite direction, the connector will not be connected.
- Specification of extension cable: 2547 1007 22# 2 core 3 shield 5 or above.

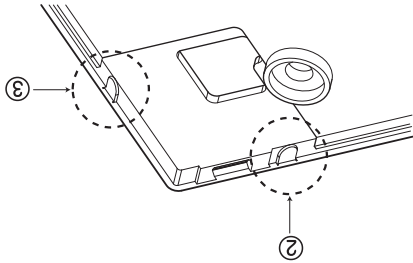
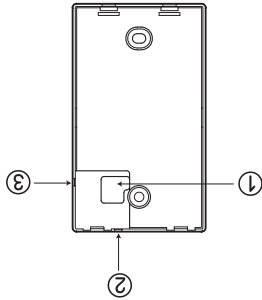
CAUTION

REMOTE CONTROLLER INSTALLATION

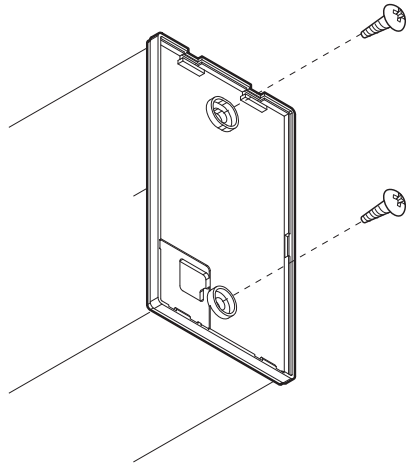
- 2 Can set up Wired remote controller cable into three directions.
 - Setup direction: the surface of wall reclamation, upper, right
 - If setting up remote controller cable into upper and right side, please set up after removing remote controller cable guide groove.

* Remove guide groove with long nose.

- ① Reclamation to the surface of the wall
- ② Upper part guide groove
- ③ Right part guide groove

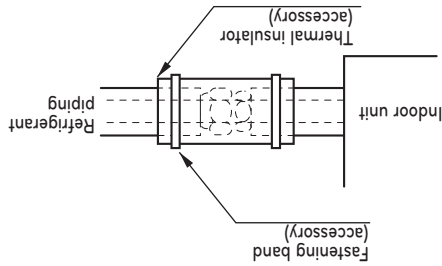


- 1 Please fix tightly using provided screw after placing remote controller setup board on the place where you like to setup.
 - Please set it up not to bend because poor setup could take place if setup board bends.
 - Please set up remote controller board fit to the reclamation box if there is a reclamation box.



Heat insulation

- 1 Use the heat insulation material for the refrigerant piping which has an excellent heat-resistance (over 120°C).
- 2 Precautions in high humidity circumstance: This air conditioner has been tested according to the "KS Standard Conditions with Mist" and confirmed that there is not any default. However, if it is operated for a long time in high humid atmosphere (dew point temperature: more than 23°C), water drops are liable to fall. In this case, add heat insulation material according to the following procedure:
 - Heat insulation material to be prepared... Adiabatic glass wool with thickness 10 to 20mm.
 - Stick glass wool on all air conditioners that are located in ceiling atmosphere.

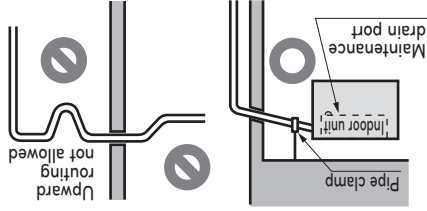


Indoor Unit Drain Piping

- Drain piping must have down-slope (1/50 to 1/100): be sure not to provide up-and-down slope to prevent reversal flow.
- During drain piping connection, be careful not to exert extra force on the drain port on the indoor unit.
- The outside diameter of the drain connection on the indoor unit is 32mm.

Piping material: Polyvinyl chloride pipe VP-25 and pipe fittings

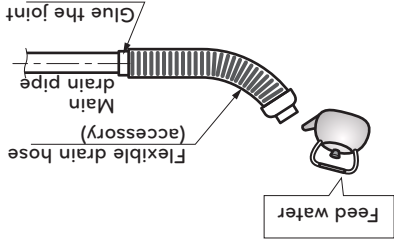
- Be sure to execute heat insulation on the drain piping.
- Install the drain raising pipes at a right angle to the indoor unit and no more than 300mm from the unit.



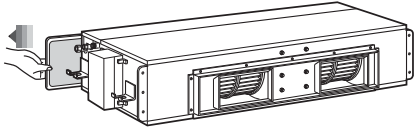
Heat insulation material: Polyethylene foam with thickness more than 8 mm.

Drain test

- Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

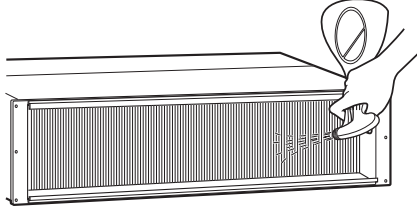


1 Remove the Air Filter.

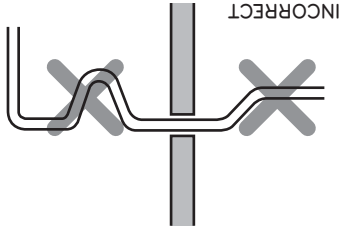
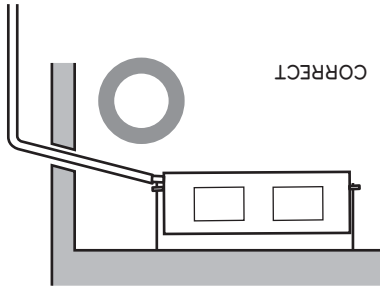


2 Check the drainage.

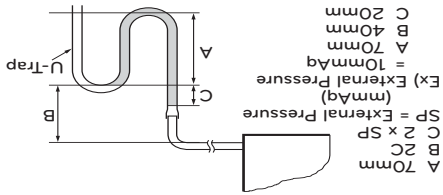
- Spray one or two glasses of water upon the evaporator.
- Ensure that water flows drain hose of indoor unit without any leakage.



- Upward routing not allowed

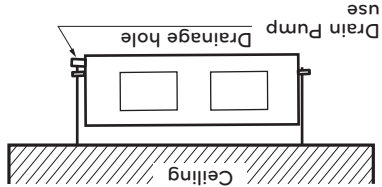
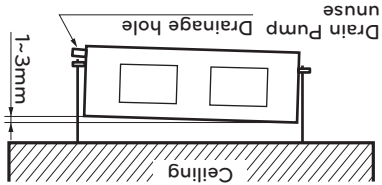


- Install the P-Trap (or U-Trap) to prevent a water leakage caused by the blocking of intake air filter.



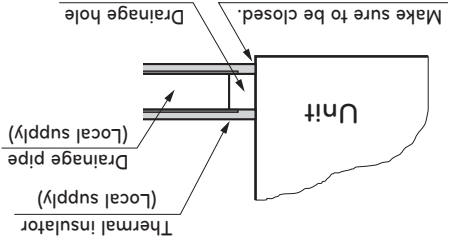
CAUTION

- Install declination of the indoor unit is very important for the drain of the duct type air conditioner.
- Minimum thickness of the insulation for the connecting pipe shall be 5mm.
- The unit must be horizontal or declined to the drain hose connected when finished installation.



Caution for gradient of unit and drain piping

- Lay the drain hose with a downward inclination so water will drain out.
- Always lay the drain with downward inclination (1/50 to 1/100). Prevent any upward flow or reverse flow in any part.
- 5mm or thicker formed thermal insulator shall always be provided for the drain pipe.

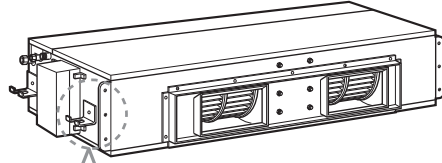
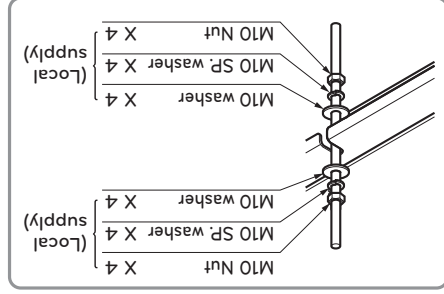


CASE 2

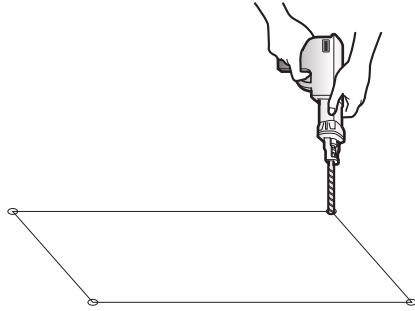
- Install the unit leaning to a drainage hole side as a figure for easy water drainage.

Position of console Bolt

- A place where the unit will be leveled and that can support the weight of the unit.
- A place where the unit can withstand its vibration.
- A place where service can be easily performed.



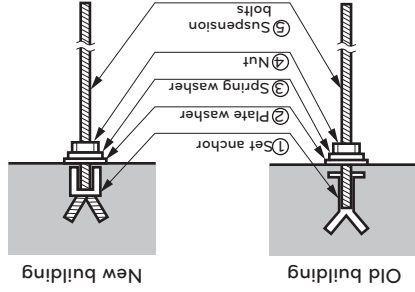
- Select and mark the position for fixing bolts**
- Drill the hole for set anchor on the face of ceiling.



CAUTION

Tighten the nut and bolt to prevent unit falling.

- Insert the set anchor and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
- Mount the suspension bolts to the set anchor firmly.
- Secure the installation plates onto the suspension bolts (adjust level roughly) using nuts, washers and spring washers.

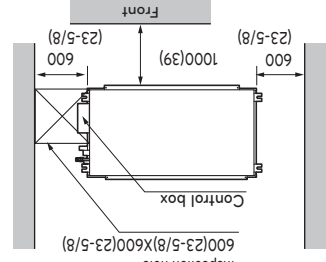


INSTALLATION OF INDOOR

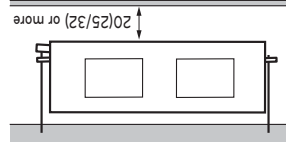
Selection of the best location

- Install the air conditioner in the location that satisfies the following conditions.
- The place shall easily bear a load exceeding four times the indoor unit's weight.
- The place shall be able to inspect the unit as the figure.
- The place where the unit shall be leveled.
- The place shall easily connect with the outdoor unit.
- The place where the unit is not affected by an electrical noise.
- The place where air circulation in the room will be good.
- There should not be any heat source or steam near the unit

Top view
Unit: mm(inch)



Front view
Unit: mm(inch)



Confirm the positional relationship between the unit and suspension bolts.
- Installation the ceiling opening to clean the filter or service under the product.

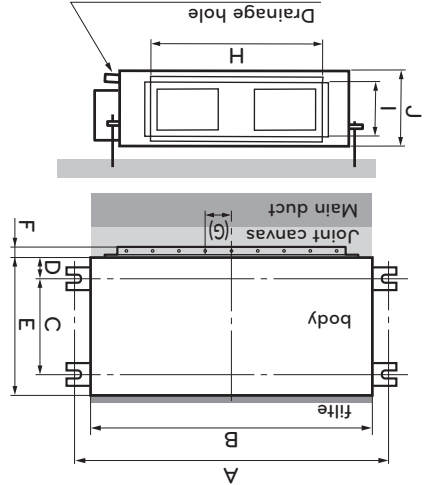
Ceiling dimension and hanging bolt location

Install the unit above the ceiling correctly.

CASE 1

Position of suspension Bolt

- Apply a joint-canvas between the unit and duct to absorb unnecessary vibration.
- Apply a filter Accessory at air return hole.



Dimension	Capacity			
	A	B	C	D
18/21 kBTU/h	932	882	355	46
24/36 kBTU/h	1232	1182	355	45.5
42/48/54 kBTU/h	1290	1230	447	56
				590
				30
				87
				830
				186
				294
				380

(Unit:mm)

INTRODUCTION

Features

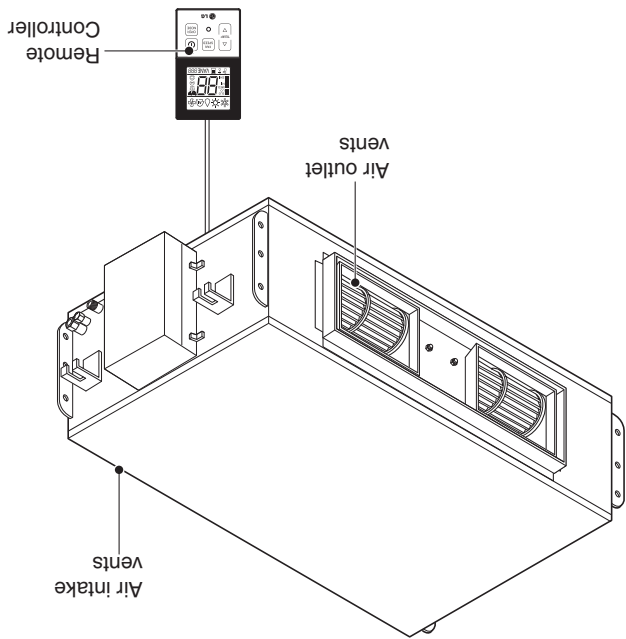


TABLE OF CONTENTS

2	TIPS FOR SAVING ENERGY
3	IMPORTANT SAFETY INSTRUCTIONS
6	INTRODUCTION
6	Features
7	INSTALLATION OF IN-DOOR
7	Ceiling dimension and hanging bolt location
7	cation
7	Selection of the best location
10	Drain test
10	Indoor Unit Drain Piping
11	Heat insulation

12	REMOTE CONTROLLER INSTALLATION
13	Group Control
15	Installer Setting - Test Run Mode
15	OPTIONAL OPERATION
16	Installer Setting - Setting Address of Central Control
17	Installer Setting - Thermistor
18	Installer Setting-Remote Controller
19	Master/Slave Setup
19	Installer Setting-Celsius / Fahrenheit Switching
20	Installer Setting -E.S.P.
22	DIP SWITCH SETTING
22	SELF-DIAGNOSIS FUNCTION

- 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.



Installation

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

Operation

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

IMPORTANT SAFETY INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

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

WARNING

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

CAUTION

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

WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- Installation MUST conform with local building codes or, in the absence of local codes, with the Nation Electrical Code NFPA 70/ANSI C1-1003 or current edition and Canadian Electrical Code Part I CSA C.22.1.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

Installation

- Always perform grounding. - Otherwise, it may cause electrical shock.
- Don't use a power cord, a plug or a loose socket which is damaged. - Otherwise, it may cause 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.

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.

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 :



TYPE : Ceiling Concealed Duct

- ❑ 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.

INSTALLATION MANUAL AIR CONDITIONER

Life's Good

