LG
Life's Good

OWNER'S MANUAL

AIR CONDITIONER

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

TYPE : Highlander Ceiling Cassette Air Conditioner

For single cassette export models



MFL62865705

P/No. : MFL62865705_v2

www.lg.com

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FOR YOUR RECORDS

Write the model and serial numbers here:

Model #

Serial #

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

Dealer's Name

Date Purchased

■ Staple your receipt to this page in the event you need it to prove date of purchase or for warranty issues.

READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner.

You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of Troubleshooting Tips first, you may not need to call for service at all.

PRECAUTION

- **Contact the authorized service technician for repair or maintenance of this unit.**
- **Contact the installer for installation of this unit.**
- **The air conditioner is not intended for use by young children or invalids without supervision.**
- **Young children should be supervised to ensure that they do not play with the air conditioner.**
- **When the power cord is to be replaced, replacement work shall be performed by authorized personnel only using only genuine replacement parts.**
- **Installation work must be performed in accordance with the National Electric Code by qualified and authorized personnel only.**



Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠CAUTION	This symbol indicates the possibility of injury or damage.

■ Meanings of symbols used in this manual are as shown below.

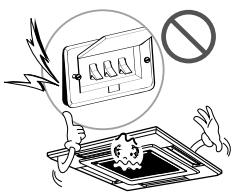
⃠	**Be sure not to do.**
❗	**Be sure to follow the instruction.**

⚠WARNING

■ Installation

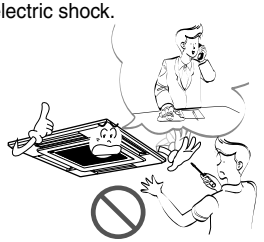
Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.

• There is risk of fire or electric shock.



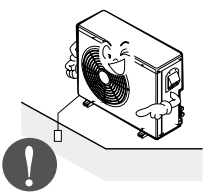
For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

• Do not disassemble or repair the product. There is risk of fire or electric shock.



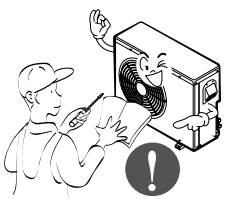
Always ground the product.

• 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.



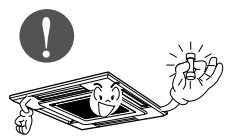
Always install a dedicated circuit and breaker.

• Improper wiring or installation may cause fire or electric shock



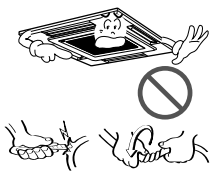
Use the correctly rated breaker or fuse.

• There is risk of fire or electric shock.



Do not modify or extend the power cable.

- There is risk of fire or electric shock.



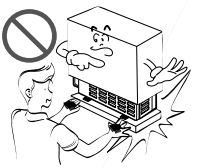
Do not install, remove, or re-install the unit by yourself (customer).

- 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.



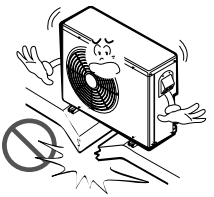
For installation, always contact the dealer or an Authorized Service Center.

- There is risk of fire, electric shock, explosion, or injury.



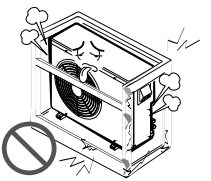
Do not install the product on a defective installation stand.

- 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.



■ Operation

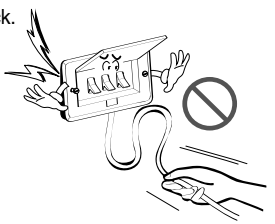
Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open .

- Moisture may condense and wet or damage furniture.



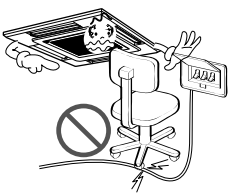
Take care to ensure that power cable could not be pulled out or damaged during operation.

- There is risk of fire or electric shock.



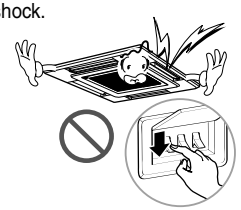
Do not place anything on the power cable.

- There is risk of fire or electric shock.



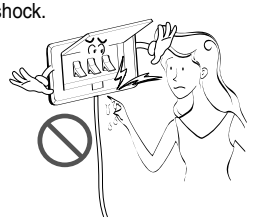
Do not plug or unplug the power supply plug during operation.

- There is risk of fire or electric shock.



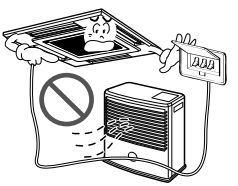
Do not touch(operate) the product with wet hands.

- There is risk of fire or electrical shock.



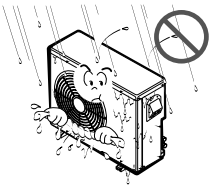
Do not place a heater or other appliances near the power cable.

- There is risk of fire and electric shock.



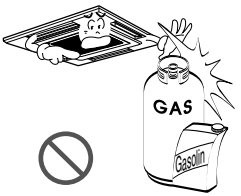
Do not allow water to run into electric parts.

- It may cause There is risk of fire, failure of the product, or electric shock.



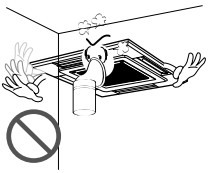
Do not store or use flammable gas or combustibles near the product.

- 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



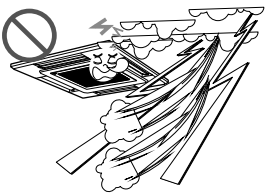
If strange sounds, or small or smoke comes from product. Turn the breaker off or disconnect the power supply cable.

- 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.



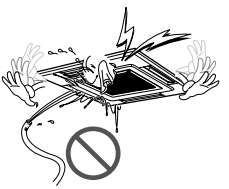
When the product is soaked (flooded or submerged), contact an Authorized Service Center.

- There is risk of fire or electric shock.



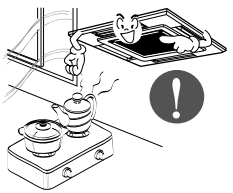
Be cautious that water could not enter the product.

- 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.



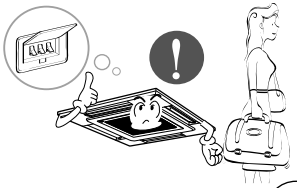
Turn the main power off when cleaning or maintaining the product.

- 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.

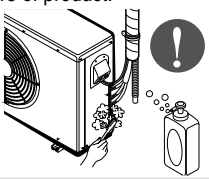


⚠CAUTION

■ Installation

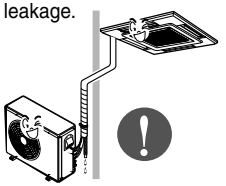
Always check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.



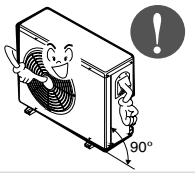
Install the drain hose to ensure that water is drained away properly.

- A bad connection may cause water leakage.



Keep level even when installing the product.

- To avoid vibration or water leakage.



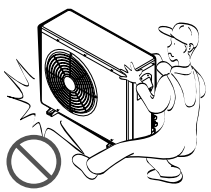
Do not install the product where the noise or hot air from the outdoor unit could damage the neighborhoods.

- It may cause a problem for your neighbors.



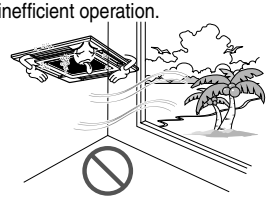
Use two or more people to lift and transport the product.

- Avoid personal injury.



Do not install the product where it will be exposed to sea wind (salt spray) directly.

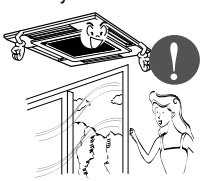
- It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.



■ Operation

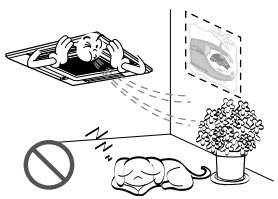
Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.)

- This could harm to your health.



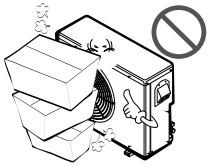
Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system.

- There is risk of damage or loss of property.



Do not block the inlet or outlet of air flow.

• It may cause product failure.



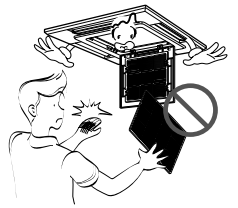
Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.

• 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.



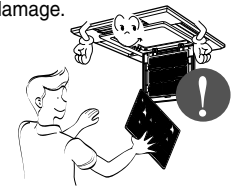
Do not step on or put anyting on the product. (outdoor units)

• There is risk of personal injury and failure of product.



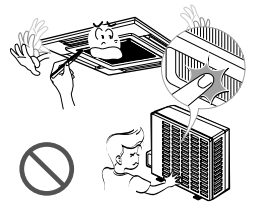
Always insert the filter securely. Clean the filter every two weeks or more often if necessary.

• A dirty filter reduces the efficiency of the air conditioner and could cause product malfunction or damage.



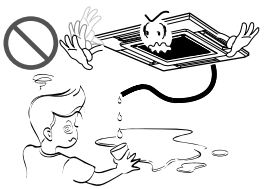
Do not insert hands or other objects through the air inlet or outlet while the product is operated.

• There are sharp and moving parts that could cause personal injury.



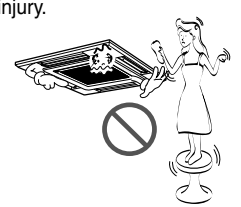
Do not drink the water drained from the product.

• It is not sanitary and could cause serious health issues.



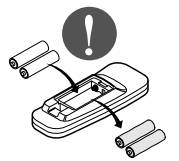
Use a firm stool or ladder when cleaning or maintaining the product.

• Be careful and avoid personal injury.



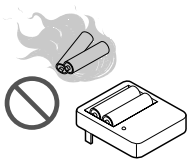
Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries.

• 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.



Prior to Operation

Preparing for operation

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

Usage

1. Being exposed to direct airflow for 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.
2. Due to the possibility of oxygen deficiency, ventilate the room when used together with stoves or other heating devices.
3. 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

1. Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
2. Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
3. 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.

Introduction

Symbols used in this Manual

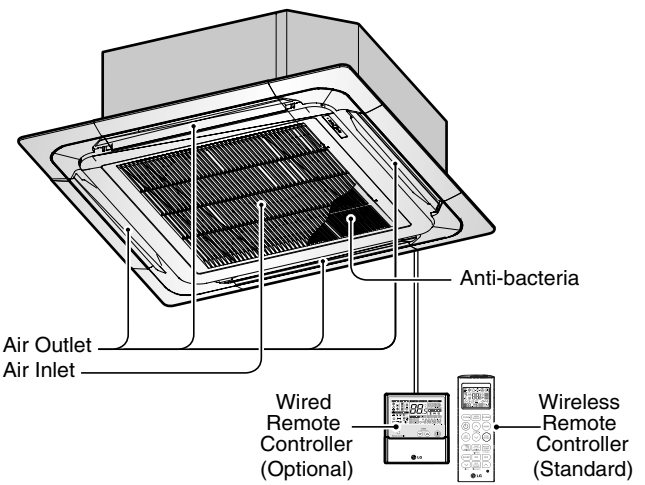
This symbol alerts you to the risk of electric shock.

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

NOTICE **This symbol indicates special notes.**

Features

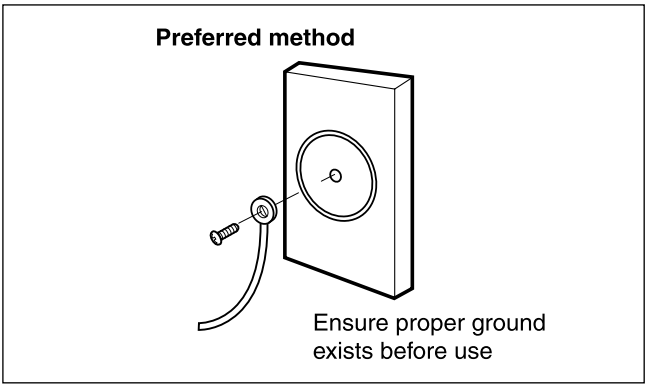
WARNING: This appliance should be installed in accordance with national wiring regulations. This guide acts as a guide to help to explain product features.



Electrical Safety

WARNING: This appliance must be properly grounded.

To minimize the risk of electric shock, you must alway plug into a grounded oulet.



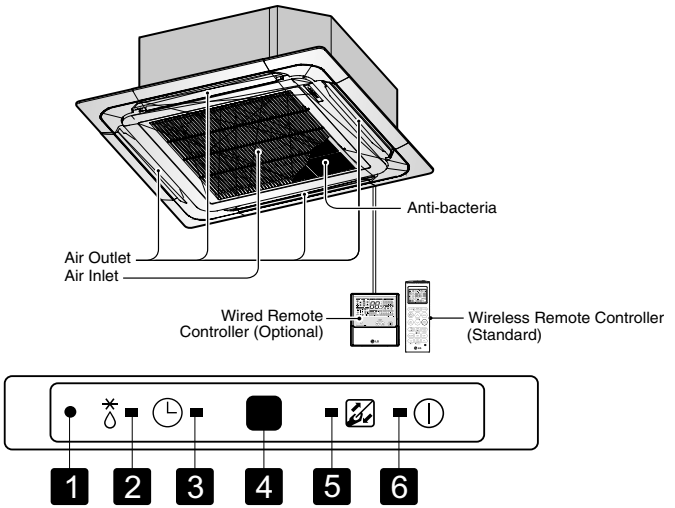
WARNING: Do not cut or remove the grounding prong from the power wire.

WARNING: Attaching the adapter ground terminal to the wall receptacle cover screw does not ground the appliance unless the cover screw is metal and not insulated, and the wall receptacle is grounded through the house wiring.

WARNING: If you have any doubt whether the air conditioner is properly grounded, have the wall receptacle and circuit checked by a qualified electrician.

Operating Instructions

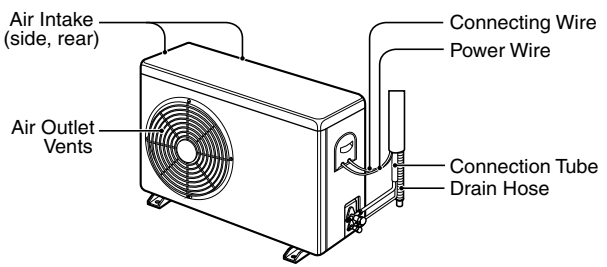
Indoor Unit, Outdoor Unit



Operation Indication Lamps

1	Forced Operation	: Operation procedures when remote control can't be used.
2	Defrost Mode	: Lights up during defrost mode or hot start operation. (heat pump model only)
3	Timer	: Lights up during timer operation.
4	Signal Receptor	: Receives the signal from remote control (signal receiving sound: two short beeps and one long beep)
5	Filter Sign	: Lights up after 2400 hours from the time of first operation.
6	On/Off	: Lights up during system operation.

Outdoor Unit



Cooling model: Cassette Type Air Conditioner for cooling

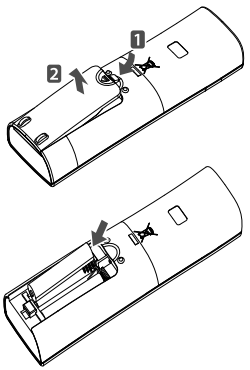
Operating Instructions

How to insert the Batteries

Remove the battery cover by pulling it according to the arrow direction.

Insert new batteries making sure that the (+) and (-) of battery are installed correctly.

Reattach the cover by sliding it back into position.



NOTE

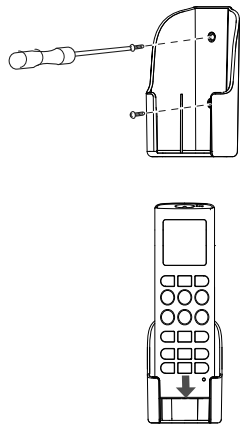
- Always use/replace both batteries of same type.
- If the system is not to be used for a long time, remove the batteries to save their working life.
- If the display screen of remote controller starts, fading replace both of the batteries.

Wireless Remote Controller Maintenance

Choose a suitable place where its safe & easy to reach.

Fix the holder to wall etc with the supplied screws firmly.

Slide the remote controller inside the holder.

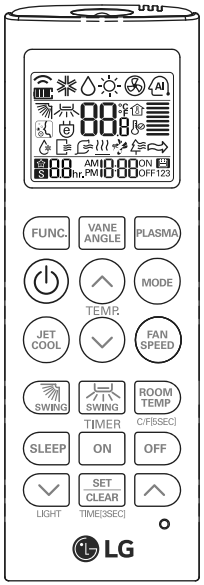


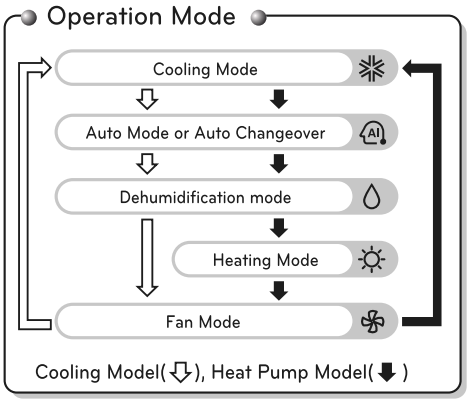
NOTE

- Remote controller should never be exposed to direct sunlight.
- Signal transmitter & receiver should always be clean for proper communication. Use a soft cloth to clean them.
- In case some other appliances also get operated with remote control, change their position or consult your serviceman.

Wireless Remote Controller (Standard)

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





1 VANE ANGLE Button
Used to set each vane angle.

2 FUNCTION SETTING Button
Used to set or clear Auto Clean, Smart Clean, Electric heater or Individual vane angle control.

3 ON/OFF Button
Used to turn on/off the unit.

4 JET COOL Button
Speed cooling operates super high fan speed.

5 LEFT/RIGHT AIRFLOW Button (OPTIONAL)
Used to set the desired left/right(horizontal) airflow direction.

6 UP/DOWN AIRFLOW Button
Used to stop or start louver movement and set the desired up/down airflow direction.

7 ON TIMER Button
Used to set the time of starting operation.

8 SLEEP TIMER Button
Used to set the time of sleeping operation.

9 SET / CLEAR Button
Used to set/clear the timer.
Used to set the current time(if it input for 3sec.)

10 PLASMA Button (OPTIONAL)
Used to start or stop the plasma-purification function.

11 ROOM TEMPERATURE SETTING Button
Used to select the room temperature.

12 OPERATION MODE SELECTION Button
Used to select the operation mode.

13 INDOOR FAN SPEED SELECTION Button
Used to select fan speed in four steps low, medium, high and chaos.

14 ROOM TEMPERATURE CHECKING Button
Used to check the room temperature.

15 OFF TIMER Button
Used to set the time of stopping operation.

16 TIMER SETTING(Up/Down)/LIGHT Button
Used to set the timer.
Used to adjust the brightness.(if it is not time adjust mode)

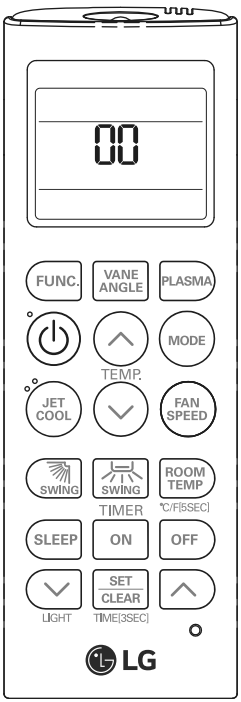
17 RESET Button
Used to reset the remote controller.

**Heat Pump functions are optional, not applicable for Cooling only Model.

Installer Setting - How to enter installer setting mode

CAUTION

Installer setting mode is to set the detail function of the remote controller.
If the installer setting mode is not set correctly, it can cause problems to the product, user injury or property damage. This must be set by an certificated installer, and any installation or change that is carried out by a non-certificated person should be responsible for the results. In this case, free service cannot be provided.



1. With the JET COOL button pressed, press the RESET button.
2. By using the TEMPERATURE SETTING button, set function code and setting value. (Please refer the Installer Setting Code Table.)
3. Press the ON/OFF button toward the indoor unit 1 time.
4. Reset the remote controller to use the general operation mode.

Refer to the Installer Setting Code Table on the next page.

Installer Setting - Installer Setting Code Table

Installer Setting Code Table

No.	Function	Function Code	Setting Value	Remote Controller LCD
0	Mode Override	0	0 : Set to Master	0.0
			1 : Set to Slave	0.1
1	Ceiling Height Selection	1	1 : Standard	1.1
			2 : Low	1.2
			3 : High	1.3
			4 : Super High	1.4
2	Group Control	2	0 : Set to Master	2.0
			1 : Set to Slave	2.1
			2 : Check Master/Slave	2.2
	Auxiliary heater	2	3 : Set to Auxiliary heater	2.3
			4 : Cancel Auxiliary heater	2.4
			5 : Check Auxiliary heater Installation	2.5

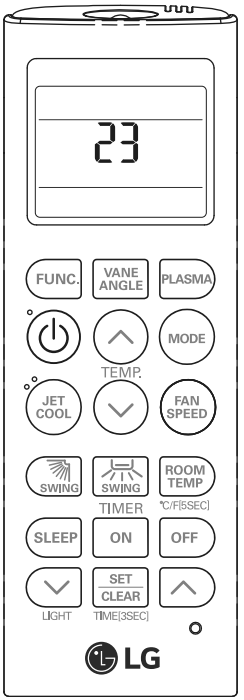
Mode Override
This Function is only for Non-Auto Changeover H/P model.

Ceiling Height Selection
Our products provide variety of air volumes and capacities according to the selection of ceiling heights.
Cooling/Heating performance is enhanced with relation to ceiling height.
- The highest/cooling heating performance and efficiency are provide at super high.
  (Some noise may be generated according to the level height setting.)

Group Control
This function is only for group control. Please don't set this function in case of non-group control.
After setting Group Control of the product, turn off the power then turn it back on after 1 minute.

Auxiliary heater
This function is only applied to models with Auxiliary Heater function being activated.

Installer Setting - Setting Address of Central Control



1. With the MODE button pressed, press the RESET button.
2. By using the temperature setting button, set the indoor unit address.
   - Setting range : 00 ~ FF
3. After setting the address, press the ON/OFF button toward the indoor unit 1 time.
4. The indoor unit will display the set address to complete the address setting.
   - The address display time and method can differ by the indoor uint type.
5. Reset the remote controller to use the general operation mode.

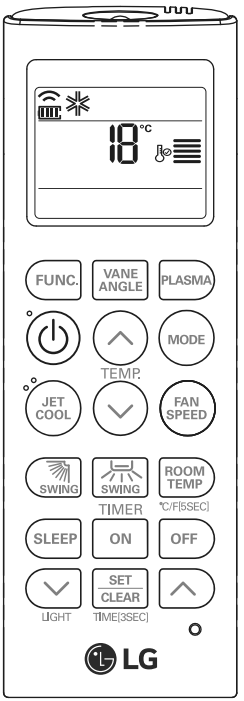
Installer Setting - Checking Address of Central Control

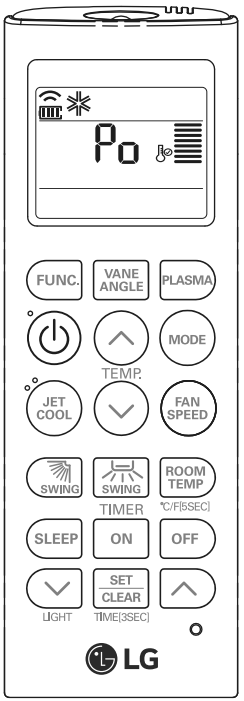
1. With the FUNC. button pressed, press the RESET button.
2. Press the ON/OFF button toward the indoor unit 1 time, and the indoor unit will display the set address in the display window.
   - The address display time and method can differ by the indoor unit type.
3. Reset the remote controller to use the general operation mode.

Cooling Mode

Cooling Mode - Power Cooling

- Standard Operation

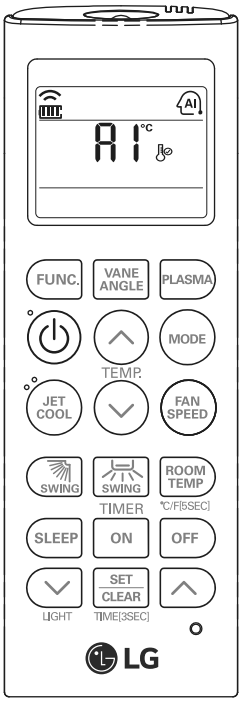




1. Press the ON/OFF button.
   The unit will respond with beep sound.
2. Press MODE button to select Cooling Mode.
3. Set the desired temperature by pressing TEMP button.
   Press ROOM TEMPERATURE CHECKING button to check the room temperature.
   When setting the desired temperature is higher than room temperature, cooling wind isn't blow out.
   • Setting Temp. Range : 18~30°C(64~86°F)

1. Press the ON/OFF button.
   The unit will respond with beep sound.
2. Press MODE button to select Cooling Mode.
3. Press the JET COOL button. The unit will operate in super high fan speed in cooling mode.
   • Wall mounted models operate power cooling mode for 30 minutes.
4. To cancel the Power cooling Mode press the Jet Cool button or the fan button or the room temperature setting button again and the unit will operate in high fan speed in cooling mode.

Auto Operation Mode



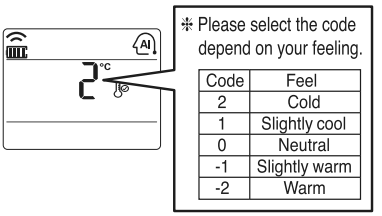
1. Press the ON/OFF button.
   The unit will respond with beep sound.

2. Press MODE button to select Auto Operation Mode.

3. Set the desired temperature.

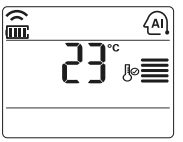
   <For Cooling Model>

   The temperature and fan speed are automatically set by the electronic controls based on the actual room temperature.
   If you feel hot or cold, press TEMPERATURE SETTING buttons for more cooling or heating effect.
   You cannot switch the indoor fan speed. It has already been set by the Auto Operation Mode rule.



<For Heating Model>

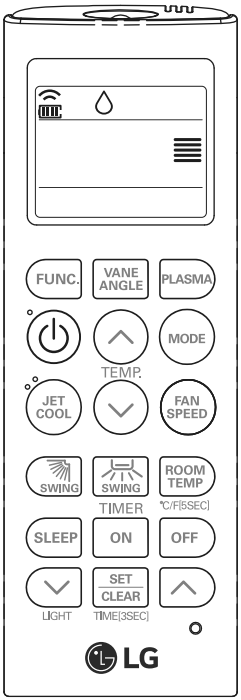
You can set desired temperature and indoor fan speed.
Setting Temp. Range : 18~30°C(64~86°F)



During Auto Operation Mode

- If the system is not operating as desired, manually switch to another mode. The system will not automatically switch from the cooling mode to the heating mode, or from heating to cooling, then you must set the mode and the desired temperature again.

Dehumidification Mode



1. Press the ON/OFF button.
   The unit will respond with beep sound.

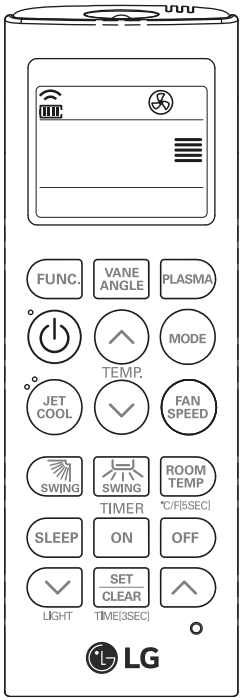
2. Press MODE button to select Dehumidification Mode.

3. Set the fan speed. You can select the fan speed in four steps - low, medium, high, or chaos. Each time the button is pressed, the fan speed mode is shifted.

During Dehumidification Mode

- If you select the dehumidification mode on the operation selection button, the indoor unit starts to run the dehumidification function, automatically setting the room temp. and air volume to the best condition for dehumidification based on the sensed room temp.
  In this case, the setting temp. is not displayed in the Remote Controller and you are not able to control the room temp. either.
- During the healthy dehumidification function, the air volume is automatically set according to the algorithm responding to the current room temp. and makes the room condition healthy and comfortable even in the high humidity season.

Fan Mode



1. Press the ON/OFF button.
   The unit will respond with beep sound.

2. Press MODE button to select Fan Mode.

3. Set the fan speed again. You can select the fan speed in four steps–low, medium, high, or chaos. Each time the button is pressed, the fan speed mode is shifted.

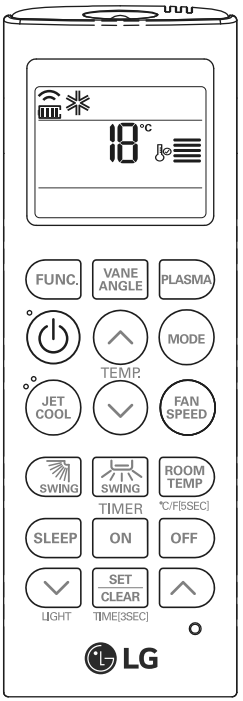
Natural Wind by the chaos Logic

- For more fresh feeling than other fan speed, press the Indoor Fan Speed Selector and set to chaos mode. In this mode, the wind blows like natural breeze by automatically changing fan speed according to the chaos logic.

During Fan Mode

- The outdoor compressor doesn't work. Have a function to circulate the indoor as it sends out the air that doesn't have much temperature difference with indoor.

Temperature Setting/Room Temperature Checking



We can simply adjust the desired temperature

- Press the buttons to adjust the desired temperature

TEMP.

: Increase 1˚C or 1˚F per one time pressing

: Decrease 1˚C or 1˚F per one time pressing

Room temp: Indicate the current room temperature

Set temp: Indicate the temperature that user want to set

<Cooling Mode>

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

<Heating Mode>

The heating mode doesn't work if desired temperature is lower than room temperature Please increase the desired temperature

Whenever press button, the room temperature will be displayed within 5 seconds.

After 5 seconds, it turns to display the desired temperature.

Because of location of remote controller, the real room temperature and the this displayed value can be different.

Airflow Setting

Up/Down Airflow Direction Control (Optional)

The up/down airflow (Vertical Airflow) can be adjusted by using the remote controller.

1. Press the ON/OFF button to start the unit.
2. Press up/down airflow button and the louvers will swing up and down.
   Press the up/down airflow button again to set the vertical louver at the desired airflow direction.

NOTE

- If you press the UP/DOWN AIRFLOW button, the horizontal airflow direction is changed automatically based on the Auto Swing algorithm to distribute the air in the room evenly and at the same time to make the human body feel more comfortable, as if enjoying a natural breeze.
- Always use the remote controller to adjust the up/down airflow direction. Manually moving the vertical airflow direction louver by hand, could damage the air conditioner.
- When the unit is shut off, the up/down airflow direction louver will close the air outlet vent of the system.

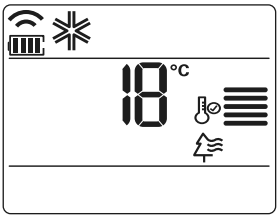
Left/Right Airflow Direction Control (Optional)

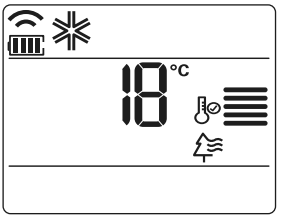
The left/right(horizontal) airflow can be adjusted by using the remote control.

1. Press the ON/OFF button to start the unit.
2. Press the LEFT/RIGHT AIRFLOW button and the louvers will swing left and right. Press the Horizontal Airflow Direction Control Button again to set the horizontal louver at the desired airflow direction.

- Up/Down and Left/Right Airflow function isn't shown on display of remote controller.

Plasma Purification (Optional)





1. Press the ON/OFF button.
   The unit will respond with beep sound.

2. Press the PLASMA button. Plasma Purification will start when the button is pressed and stop when the button is pressed again.

If you press the PLASMA button, Plasma Purification operates.

- Plasma filter is a technology developed by LG to get rid of microscopic contaminants in the intake air generating a plasma of high charge electrons. This plasma kills and destroys the contaminants completely to provide clean and hygienic air.
- This function can be used in any operation mode and any fan speed can be used while plasma filter is functioning.

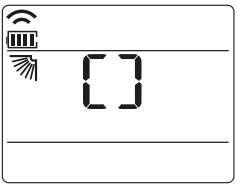
Celsius/Fahrenheit Switching

Press the °C/°F SWITCH button to change from Celsius to Fahrenheit or from Fahrenheit to Celsius.

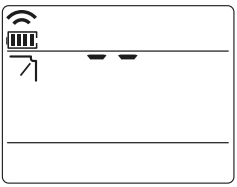
Whenever press TEMPERATURE SETTING button in Fahrenheit mode, the temperature will increase/drop 1°F.

Individual vane angle control

It is the function that can control 4 vane angles individually in the ceiling type 4Way cassette product group.



1 Press the VANE ANGLE button.
Individual vane angle control symbol will blink.
- If you press the VANE ANGLE button for 3 seconds in that time, all vanes are set to standard angle.



2 Set each vane angle by pressing the VANE ANGLE button.
- Every time the button is pressed, corresponding vane angle and set values are displayed.
- When up direction button is pressed, the display window appears as of the figure in the right, and the angle can be set to 1~6.
- Multi-V Console products can be controlled by up key in the up/down control.

3. Press SET/CLEAR button to reserve or cancel the individual vane angle control function.

- There may be differences between wireless remote controller up/down/left/right buttons and the wind discharge port directions.
- Set desired angle with checking the vane angle movement of the product.
- The individual vane control function is an additional function of a product, and it may not work in some products.

Timer

Setting the Current Time

1. Press the SET/CLEAR button for 3 seconds.

2. Press TIME SETTING buttons until the desired time is set.

3. Press the SET / CLEAR button.

> **NOTE**
>
> Check the indicator for A.M. and P.M.

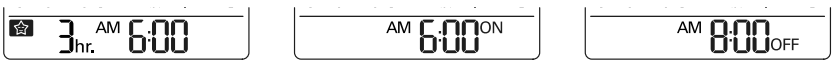
Timer Setting

1. Press the TIMER button to turn timer on or off.

2. Press TIME SETTING buttons until the desired time is set.

3. Press the SET / CLEAR button.

> **NOTE**
>
> Select one of the following 3 types of operation.



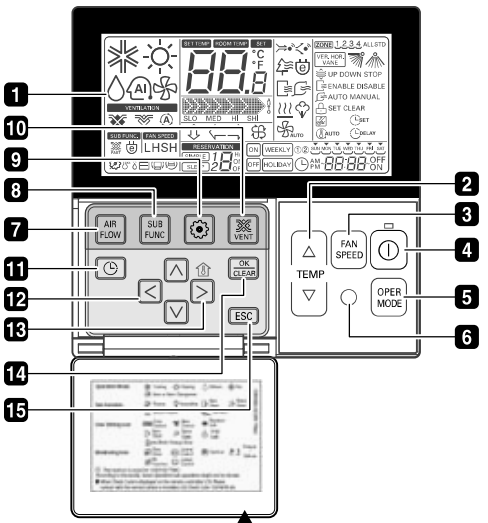
Timer Sleep | Timer ON | Timer OFF

To cancel the Timer Setting

- If you wish to cancel all timer setting, press the SET/CLEAR.

- If you wish to cancel each timer setting, press the TIMER button to turn timer sleep or on or off as you want.
  And then press the SET/CLEAR button aiming the remote controller at the signal receptor.
  (The timer lamp on the air conditioner and the display will go off.)

Wide LCD Wired Remote Controller (Optional)

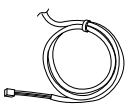


Please attach the inform label inside of the door.
Please choose proper language depend on your country.

1. **OPERATION INDICATION SCREEN**
2. **SET TEMPERATURE BUTTON**
3. **FAN SPEED BUTTON**
4. **ON/OFF BUTTON**
5. **OPRATION MODE SELECTION BUTTON**
6. **WIRELESS REMOTE CONTROLLER RECEIVER**
   - Some products don't receive the wireless signals.
7. **AIR FLOW BUTTON**
8. **SUBFUNCTION BUTTON**
9. **FUNCTION SETTING BUTTON**
10. **VENTILATION BUTTON**
11. **RESERVATION**
12. **UP,DOWN,LEFT,RIGHT BUTTON**
    - To check the indoor temperature, press button.
13. **ROOM TEMPERATURE BUTTON**
14. **SETTING/CANCEL BUTTON**
15. **EXIT BUTTON**

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

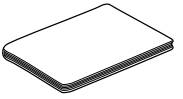
Accessory



Connection Cable
(1EA, 10m)



Screw
(4 EA)



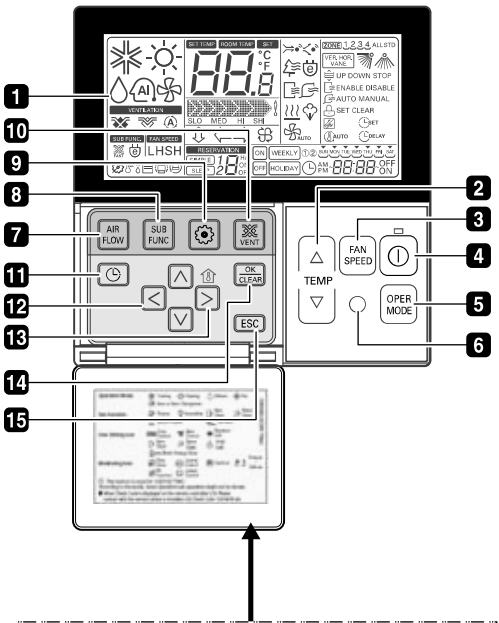
Owner's / Installation manual



Inform label
(8EA-8Languages)

Part Description

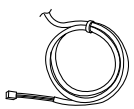
Name and Function of Remote Controller



1. **OPERATION INDICATION SCREEN**
2. **SET TEMPERATURE BUTTON**
3. **FAN SPEED BUTTON**
4. **ON/OFF BUTTON**
5. **OPRATION MODE SELECTION BUTTON**
6. **WIRELESS REMOTE CONTROLLER RECEIVER**
   - Some products don't receive the wireless signals.
7. **AIR FLOW BUTTON**
8. **SUBFUNCTION BUTTON**
9. **FUNCTION SETTING BUTTON**
10. **VENTILATION BUTTON**
11. **RESERVATION**
12. **UP,DOWN,LEFT,RIGHT BUTTON**
    - To check the indoor temperature, press ⇧/▷ button.
13. **ROOM TEMPERATURE BUTTON**
14. **SETTING/CANCEL BUTTON**
15. **EXIT BUTTON**

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

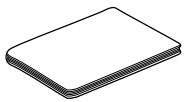
Accessory



Connection Cable
(1EA, 10m)



Screw
(4 EA)



Owner's / Installation manual

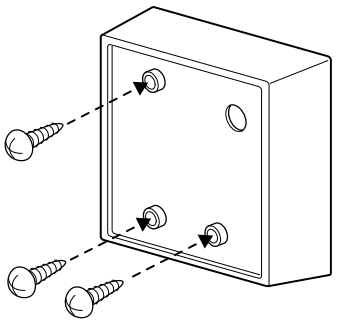


Inform label
(8EA-8Languages)

Installation instruction

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.



2. Can set up Wired remote controller cable into three directions.

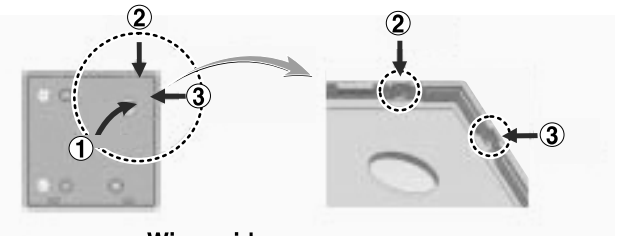
- Setup direction: the surface of wall reclamation, upper, right
- If setting up remote controller cable into upper and right side, please set up after removing remote controller cable guide groove.

❊ Remove guide groove with long nose.

① Reclamation to the surface of the wall

② Upper part guide groove

③ Right part guide groove

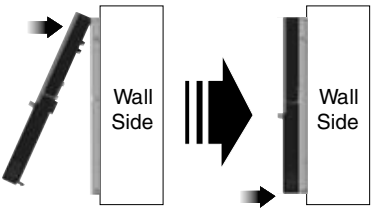


<Wire guide grooves>

3. Please fix remote controller upper part into the setup board attached to the surface of 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.

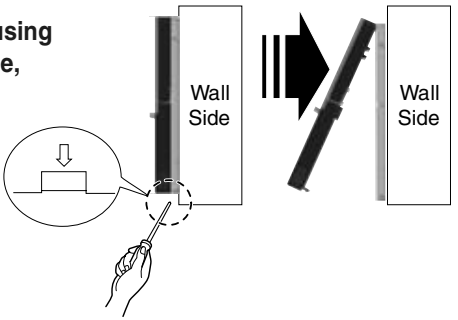
<Connecting order>



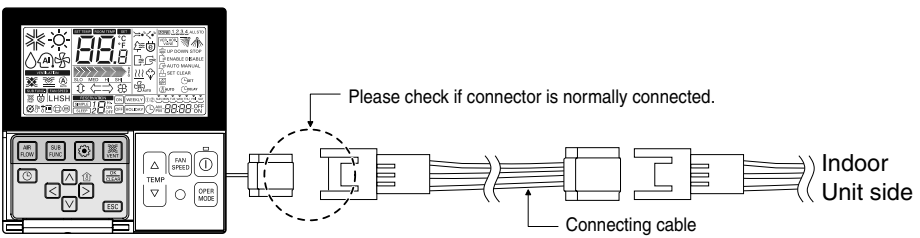
When separating remote controller from setup board, as the picture below, after inserting into the lower separating hole using screw driver and then, spinning clockwise, remote controller is separated.

- There are two separating holes. Please individually separate one at a time.
- Please be careful not to damage the inside components when separating.

<Separating order>



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



5. Please use extension cable if the distance between wired remote controller and indoor unit is more than 10m.

⚠CAUTION

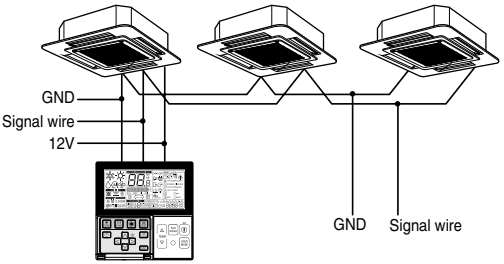
When installing the wired remote controller, do not bury it in the wall.
(It can cause damage in the temperature sensor.)
Do not install the cable to be 50m or above.
(It can cause communication error.)

- 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.

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.

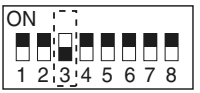


When controlling multiple indoor units with event communication function with one remote controller, you must change the master/slave setting from the indoor unit.

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



#3 switch OFF: Master
(Factory default setting)



#3 switch ON: Slave

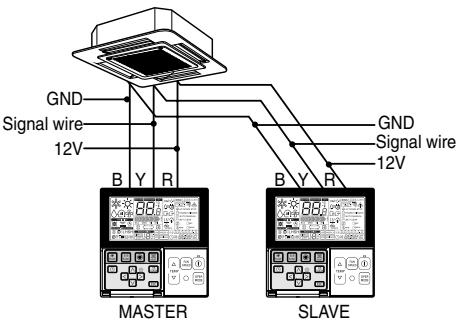
- For wall-mount type and stand type product, change the master/slave setting with the wireless remote controller. (Refer to wireless remote controller manual for detail)

❊ 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 controller lock setting and time setting may be limited.

2. 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.



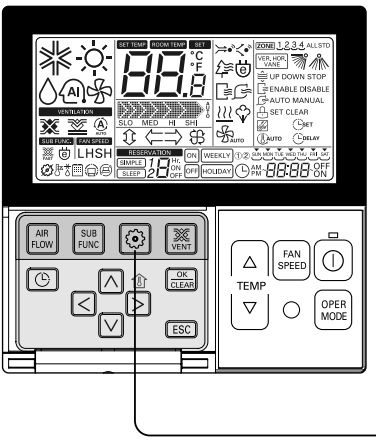
<When simultaneously connecting 2 sets of wired remote controller>

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

Installer Setting - How to enter installer setting mode

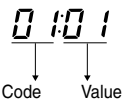
⚠CAUTION

Installer setting mode is to set the detail function of the remote controller.
If the installer setting mode is not set correctly, it can cause problems to the product, user injury or property damage. This must be set by an certificated installer, and any installation or change that is carried out by a non-certificated person should be responsible for the results. In this case, free service cannot be provided .



1 If pressing ⚙ button long for 3 seconds, it enters into remote controller setter setup mode.
- If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.

2 When you enter the setting mode initially, Function code is displayed on the bottom of the LCD screen.

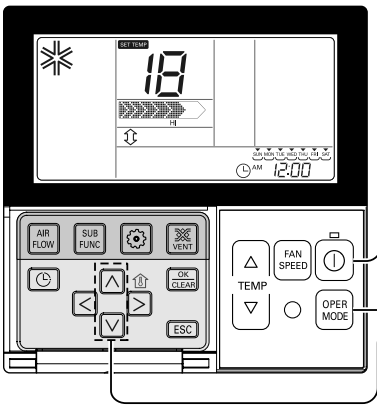


• Some categories of the menu may not be displayed according to the function of the product, or the menu name may be different.

Owner's instruction

Standard Operation - Standard Cooling

It cools the room by comfortable and clean wind.



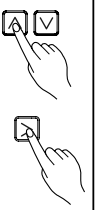
1 Press ⏻ button to turn on the indoor.



2 Press OPER MODE button to select Cooling operation mode.



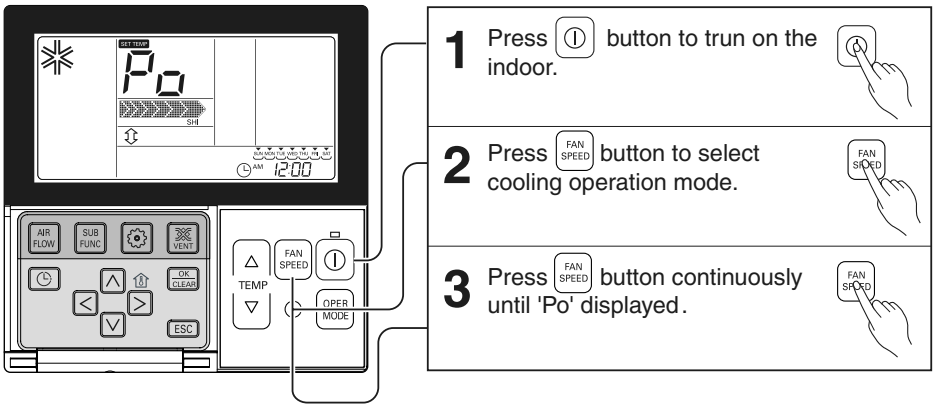
3 Adjust the desired temperature by pressing ∧ ∨ buttons.
Press > button to check the Room temperature.
When setting the desired temperature higher than room temperature, only ventilation wind is blow out instead of cooling wind.



❊ Setting Temp Range : 18˚C~30˚C (64˚F~86˚F)

Standard Operation - Power Cooling

It makes the room cool using pleasant and fresh air quickly



What is Power Cooling?

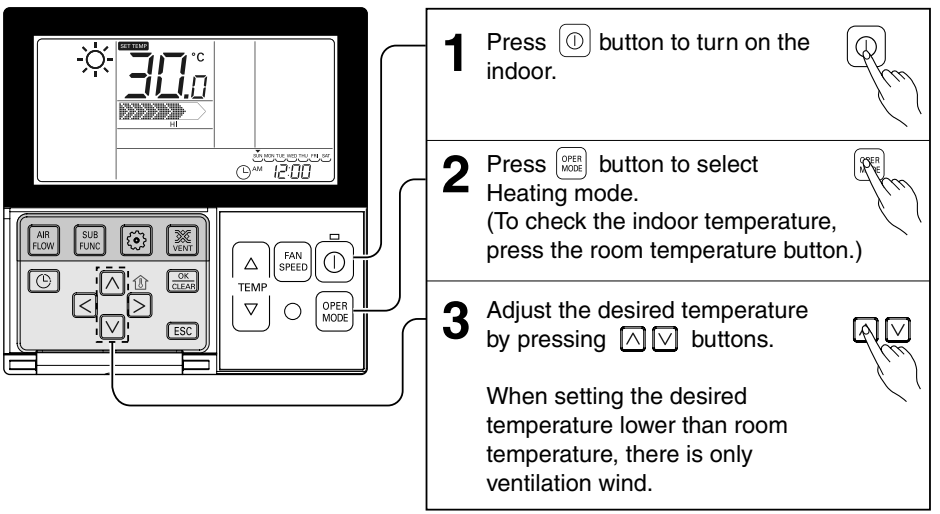
- Desired temperature: Po (actually 18°C)
- Wind flow: power wind
- Wind direction: fix to air-cooling position

} It make room temperature drop fast by running

※ Partial product has no power air-cooling function.

Standard Operation - Heating Mode

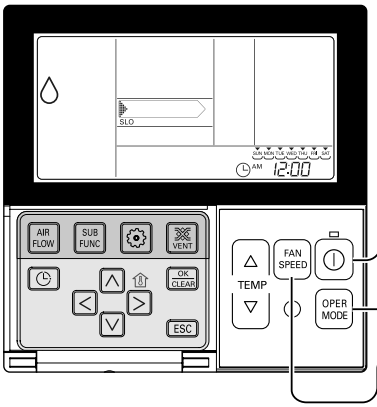
It supplies warm wind to the indoor



- Heating drive only operates at the cooling and heating model.
- Heating doesn't operate at cooling exclusive model.

Standard Operation - Dehumidification Mode

It removes humidity while air-cooling weakly.



1 Press ⏻ button to turn on the indoor.

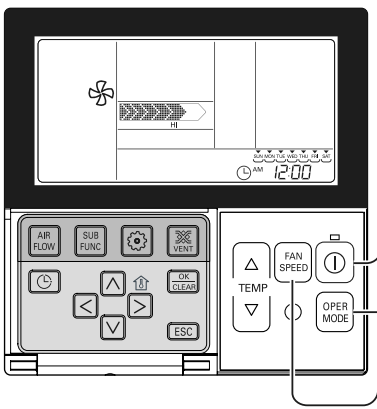
2 Press OPER MODE button to select Dehumidification mode.
The temperature setting can not be adjusted during operation this mode.

3 Press the FAN SPEED button to select airflow rate feeble → weak → medium → strong → automatic.
(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 - Fan Mode

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



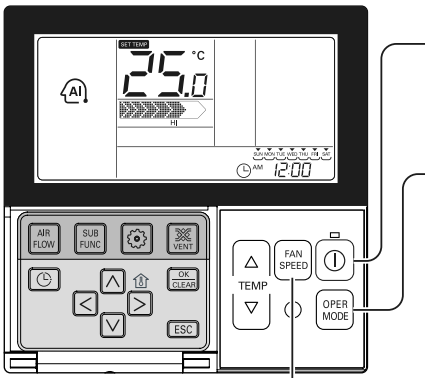
1 Press ⏻ button to turn on the indoor.

2 Press OPER MODE button to select Fan Mode.

3 Every time pressing FAN SPEED button, you can select wind flow in order of feeble→ weak→ medium→ strong → automatic.
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.

Standard Operation - Auto Operation Mode



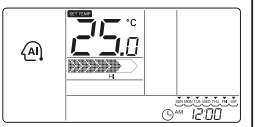
1 Press ⏻ button to turn on the indoor.



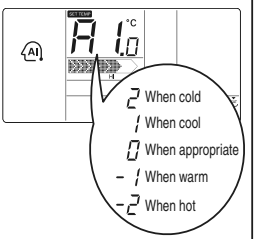
2 Press OPER MODE button to select Artificial intelligence Mode.



3 You can adjust the temperature as the picture on the right for cooling and heating model.



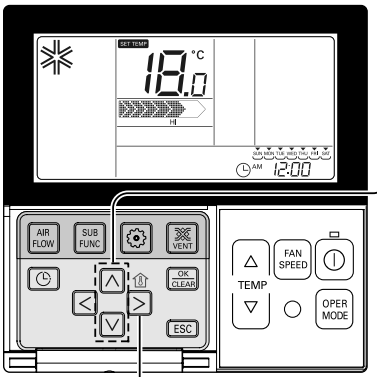
4 For the case of cooling exclusive, as the picture on the right, you can adjust the temperature from hot to cold, from "-2" to "2" based on "00".



During operating Auto Operation mode :

- We can use the FAN SPEED button
- We can change manually to other operation mode.

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.

Heating operation:

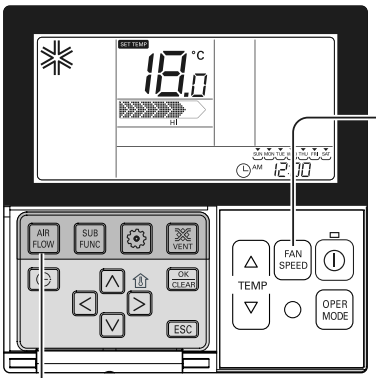
- The heating mode doesn't work if desired temperature is lower than room temperature Please increase the desired temperature.

Room Temperature Check

1 Whenever press 18 > button, the room temperature will be displayed within 5 seconds.
After 5 seconds, it turns to display the desired temperature.
Because of location of remote controller, the real room temperature and the this displayed value can be different

- 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.

Standard Operation - Airflow Setting



Wind powerfulness : You can simply adjust desired wind powerfulness.

1 Please setup desired wind powerfulness by wind powerfulness button.

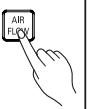


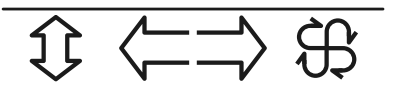
- Every time you press wind powerfulness, you can select the wind flow in order of 'feeble → weak→ weak medium ? medium→ medium strong→ strong ? power → automatic'.
- The menu item might not be partially selected according to product function.
- Please refer to product manual for product's detailed function.



Wind direction : You can simply adjust desired wind direction.

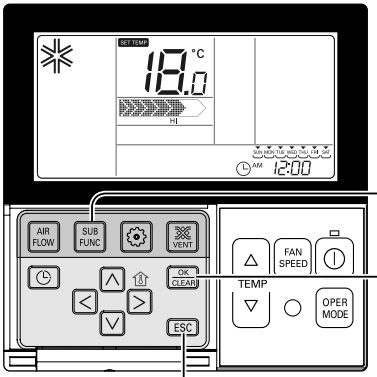
1 Please set desired wind direction by pressing AIR FLOW button.
You can select wind direction of (comfortable wind→ Up/Down and Right/Left→ Right/Left→ Up/Down) by pressing AIR FLOW button.
Partial item of wind directions might not be selected according to product function.
Please refer to product manual for product's detailed function.





Sub function - Direct Wind / Indirect Wind

It is the function to directly or indirectly control wind direction by body perception sensor.



The method to setup direct/indirect wind

1 Please press SUB FUNC button.

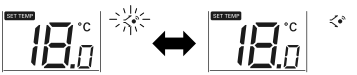


2 The icon of direct/indirect wind blinks on the display, and then, if pressing OK CLEAR button, direct/indirect wind icon is fixed and the function is setup.





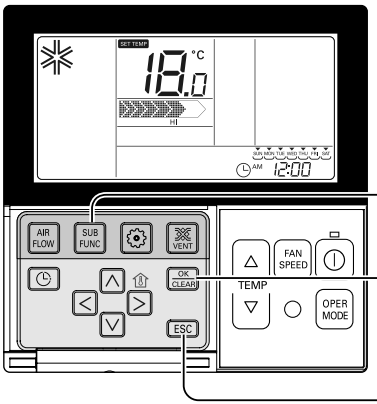
direct wind



indirect wind

3 If pressing ESC button, it gets out of setup mode.





The method to cancel direct/indirect wind

1 Please press SUB FUNC button.



2 The icon of direct/indirect wind blinks on the display, and then, if pressing OK CLEAR button, direct/indirect wind icon is removed and the function is cancelled.

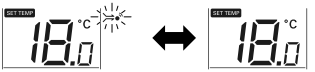


3 If pressing ESC button, it gets out of setup mode.

❉ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❉ When exiting without pressing set button, the manipulated value is not reflected.





direct wind

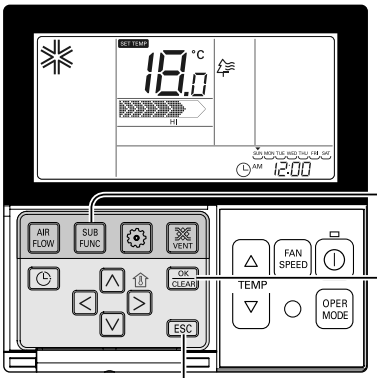


indirect wind

- Direct/indirect wind function is additional function and it might not be indicated or operated at the partial product.
- Direct/indirect wind function is possible only when product is running.

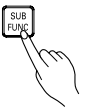
Sub function - Plasma Purification

Only products with humidifying function can use this.



The method to setup cleaning air

1 Repeat pressing SUB FUNC button until icon flash.



2 Operate or cancel Plasma Purification function by pressing OK CLEAR button.
(icon appears/disappears on **SUB FUNCTION** display part up to selection)



3 After setting, press ESC button to exit.

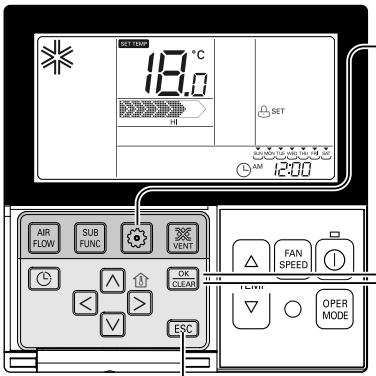


❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
❊ When exiting without pressing set button, the manipulated value is not reflected.

- Cleaning air function is additional function and it might not be indicated or operated at the partial product.
- Cleaning air function is possible only when product is running.
- If you want independent cleaning air drive, please setup cleaning air by pressing additional drive button at ventilation drive.

Function setting - Child Lock

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



1 Press ⚙ button repeatedly until the 🔒 is flashing.



2 If moving to 'setup' icon area by using ◁ ▷ button, 'setup' icon blinks, and child lock function is setup if pressing OK CLEAR button at that time.



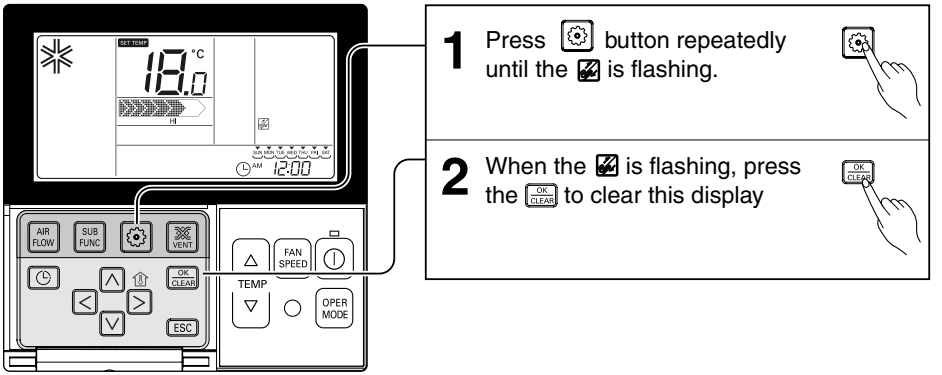
3 When cancelling lock function, if moving to 'cancel' icon by pressing ◁ ▷ button and then, pressing OK CLEAR button, child lock function is cancelled.

4 Press ESC button to exit.

- ✻ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
- ✻ When exiting without pressing set button, the manipulated value is not reflected.

Function setting - Filter Sign Clear

This function is to clear the indicator of indoor filter cleaning.

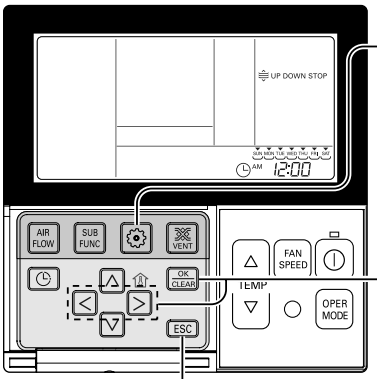


- When filter is covered by dust, it will reduce cooling/heating efficiency and accumulate more electric power. Therefore. do clean the filter whenever cleaning time is expired.

❊ Filter cleaning indication is automatically cancelled without the separate cancellation after certain period of time.

Function setting - Elevation Grill

This function is to move the indoor filter up/down for cleaning filter.



1 Press [⚙] button
Repeat pressing [⚙] button until ⇳ icon flash.



2 Move to descent using [<] [>] button and press [OK CLEAR] button will display descent icon and the up/down grill will descent.

3 When up/down grill descents to the desired position, move to stop icon suing [<] [>] button and press [OK CLEAR] button to stop up/down grill.

4 When filter cleaning is finished, fix the filter to the up/down grill, move to ascent icon using [<] [>] button, and press [OK CLEAR] button to ascent up/down grill.

5 Press [ESC] button to exit.



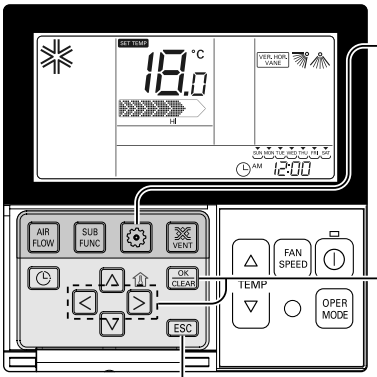
❊ After setup, it automatically gets out of setup mode if there is no button input for 60 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.

• Elevation grill function only operates in the indoor unit with the elevation grill.

Function setting - Vane Angle Control

This function is to adjust angle at which airflow is blow out.



1 Repeat pressing ⚙ button until ⚙ icon flash.

2 Press △ ▽ button to select active vane : 1 / 2 / 3 / 4 / All / Standard
Select Vane number using ◁ ▷ buttons.
❊ Vane number : No. 1, 2., 3, 4, all, or standard
- Selected vane is in operation.
- Please verify the operating vane.
- To set the angle of all the vanes, select 'all'.
- To set as the factory default settings, select 'standard'.

3 Select wind angle using △ ▽ button, and press OK CLEAR button.
- The boundary of wind angle settings can be changed to 5 levels or 6 levels according to the product.
- When selecting 'standard' for Vane number, the wind angle does not move.

4 Set the wind angles for the remaining vanes as the same as above.
❊ There are products with vanes with no. 1 and no. 2 only according to the product types.

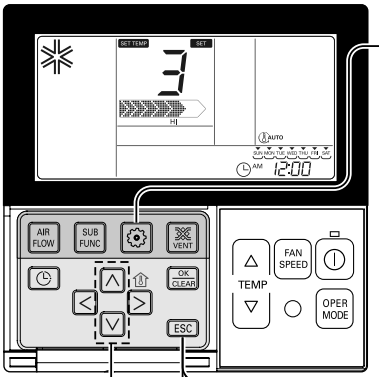
5 Press ESC button to exit.
❊ After setup, it automatically gets out of setup mode if there is no button input for 60 seconds.
❊ When exiting without pressing set button, the manipulated value is not reflected.

6 Press OK CLEAR button to complete and active the setting process.
(Airflow direction function will be released whenever setting vane angle)

7 Press ESC button to exit or system will automatically release without any input after 25 seconds.

Function Setting - Change Temp

Change temperature is the function to setup air-cooling and heating drive automatically changeable according to the temperature at artificial intelligence drive mode.



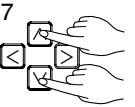
1 Repeat pressing ⚙ button until AUTO icon flash.



2 Press △ ▽ button to change.

❊ Converting temp value : 1~7

1 ➜ 3



3 Press ESC button to complete and active the setting process.

3

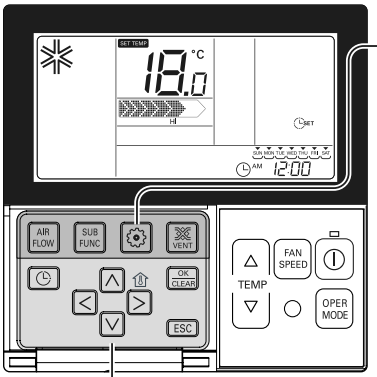


4 Press ESC button to exit or system will automatically release without any input after 25 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.



Function setting - Changing Current Time



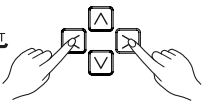
1 Please press function setup button. If pressing function setup button repeatedly, it moves to time setup menu. 'Time setup' icon is indicated at that time and date blinks at current time indication area.



Ex) Changing Current Time as 'Monday / AM 10:20'.

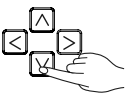
2 Press < > key to adjust the current day.

SUN MON TUE WED THU FRI SAT



3 Press ∨ key to move to AM/ PM setting mode (the 'AM/ PM segment will flash).

AM 12:00

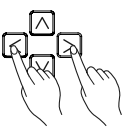


4 Setting AM/ PM value by pressing ∧ ∨ button.



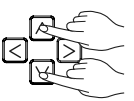
5 Press < > button to move to 'Hour' setting mode. (the 'Hour' segment will flash)

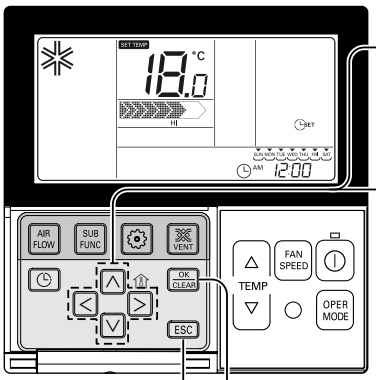
AM 12:00



6 Setting Hour value by pressing ∧ ∨ button.

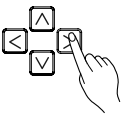
AM 10:00





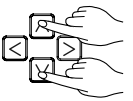
7 Press ◁ ▷ button to move to 'Minute' setting mode. (the 'Minute' segment will flash)

AM 10:00



8 Setting Minute value by pressing △ ▽ button.

AM 10:20



9 Press OK CLEAR button to finish.

AM 10:20

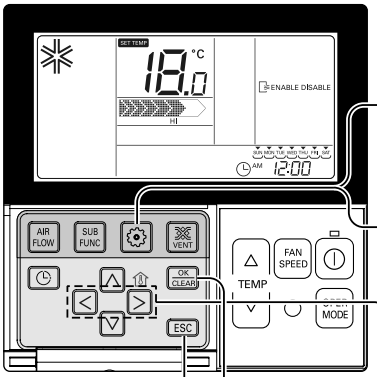


10 In the process, press ESC button to release and exit from setting mode.
(In case of exit with incomplete information, it will return to the previous setting)



❊ When exiting without pressing set button, the manipulated value is not reflected.

Function setting - Auto Cleaning

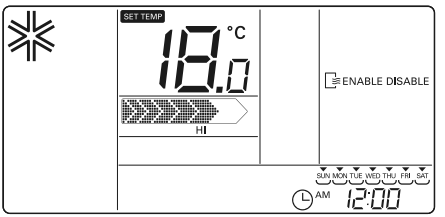


The method to setup Automatic Drying

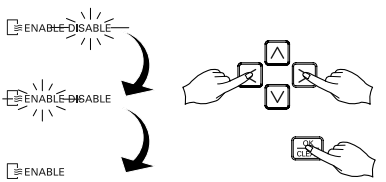
1 Please press ⚙ button.



2 Move to automatic drying menu by pressing ⚙ button twice. 'Automatic Drying' icon will be displayed and the current status, 'DISABLE' will blink.



3 If moving to 'ABLE' icon area by using ◁ ▷ button, 'ABLE' icon blinks, and automatic dry function is setup if pressing OK CLEAR button at that time.



4 When returning to automatic dry no use, automatic dry function is cancelled if moving to 'DISABLE' icon by pressing ◁ ▷ button and then, pressing OK CLEAR button.

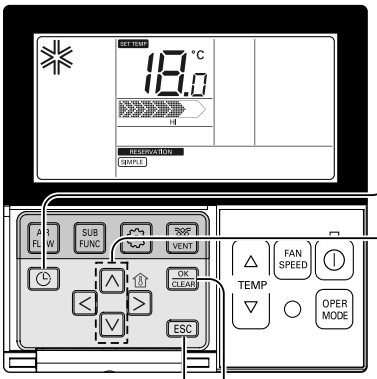
5 If pressing ESC button, it gets out of setup mode.

- ❉ After setup, it automatically gets out of setup mode if there is no button input for 60 seconds.
- ❉ When exiting without pressing set button, the manipulated value is not reflected.

• Automatic dry function might not be operated at the partial product.

Programming - Simple Reservation

You can set the reservation conveniently in the units of 1 hour from 1 hour to 7 hours.



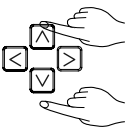
1 Press ⏲ button to enter the Programming mode.
(the SIMPLE segment flashing)



Ex) Setting Simple Reservation time as '3'.

2 Press ∧ ∨ button to adjust reservation time.

1 ➜ 3



3 Press OK CLEAR button to finish setting.

3



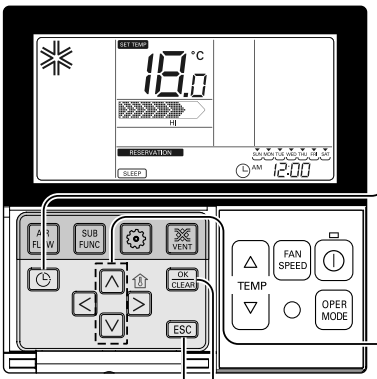
4 Press ESC button to exit.

- ❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
- ❊ When exiting without pressing set button, the manipulated value is not reflected.

❊ When simple reservation setup, product automatically runs or stops after the time that is set.

Programming - Sleep Reservation

Sleep reservation is the function of air-conditioner to run and stop after certain period of time at sleep mode before sleep. When connected to a ventilation product and set the sleep reservation, when it goes to the sleep mode, after the set time has elapsed.



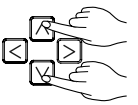
1 Press [clock] button to enter the Programming mode.
Ex) Setting Sleep Reservation time as '3'.



2 Repeat pressing [clock] button to enter the SLEEP reservation setting mode.
([SLEEP] segment flashing)

3 Press [∧] [∨] button to adjust reservation time.
The SLEEP reservation time is from 1 to 7 hours.

1h ➜ 3h



4 Press [OK CLEAR] button to finish setting.
Whenever reservation is done.



5 Press [ESC] button to exit.
- ❉ After setup, it automatically gets out of setup mode if there is no button input for 60 seconds.
- ❉ When exiting without pressing set button, the manipulated value is not reflected.
  - If reservation is setup, 'sleep' indication shows up at the lower part of LCD screen.

6 If finishing sleep reservation setup, air-conditioner product operates sleep drive and stops after the time that is set.

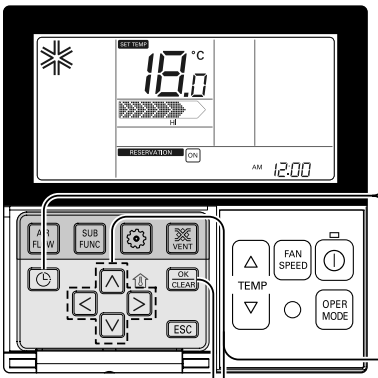
⚠CAUTION

Please reserve proper time at sleeping. (Too much air-cooling is not good for your health.)

- Because it automatically adjusts desired temperature for comfortable air-cooling at sleep drive, there could be difference between remote controller's desired temperature and air-conditioner body's desired temperature.
- Sleep reservation operates as off reservation for the product whose temperature adjustment isn't controlled by unit of 0.5°C.

Programming - ON Reservation

Automatically turned On at reserved time that you set.



1 Press [clock] button.

Ex) Setting ON Reservation Time as 'AM 10:20'.

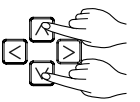


2 Repeat pressing [clock] button to enter the ON reservation setting mode.
([ON] segment flashing)



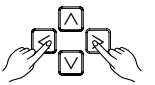
3 Press [∧] [∨] button to adjust AM/ PM setting.

AM 12:00

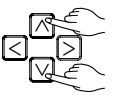


4 Press [<] [>] button to Hour setting mode. When the Hour icon flash, please setting time.
The setting range is within 1~12.

AM 12:00



AM 10:00

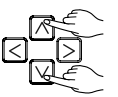


5 Press [<] [>] button to shift to Minute setting mode. When the Minute icon flash, please setting minute the setting range is within 00~59.



AM 10:00

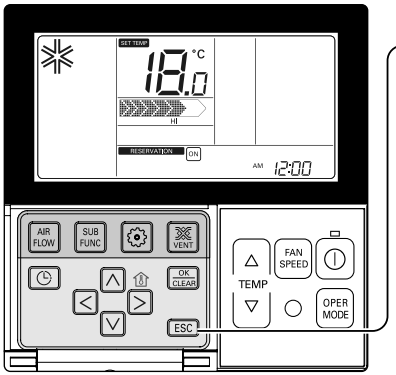
AM 10:20



6 Press [OK CLEAR] button to finish setting.

AM 10:20





7 Press ESC button to exit.

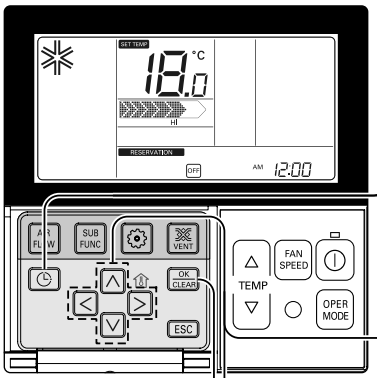
❉ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❉ When exiting without pressing set button, the manipulated value is not reflected.

- If reservation is set, 'turned on' indication shows up at the lower part of LCD screen, and air-conditioner product runs at the time that is set.
- If reservation is cancelled, 'turned on' indication disappears.

Programming - OFF Reservation

Automatically turned Off at reserved time that you set.



1 Press ⏲ button.

Ex) Setting OFF Reservation Time as 'AM 10:20'.

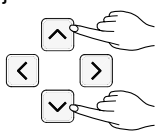


2 Repeatedly pressing ⏲ button to enter the OFF reservation setting mode.
(OFF segment flashing)



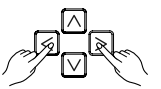
3 Press ∧ ∨ button to adjust AM/ PM setting.

⏲ AM 12:00

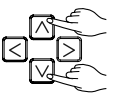


4 Press < > button to shift to Hour setting mode. When the Hour icon flash, please setting time.
The setting range is within 1~12.

⏲ AM 12:00

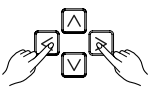


⏲ AM 10:00

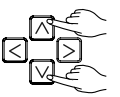


5 Press < > button to shift to Minute setting mode. When the Minute icon flash, please setting minute the setting range is within 00~59.

⏲ AM 10:00



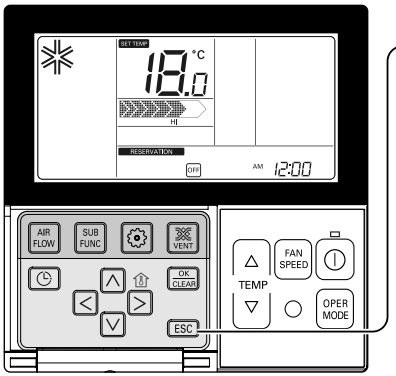
⏲ AM 10:20



6 Press OK CLEAR button to finish setting.

⏲ AM 10:20





7 Press ESC button to exit.

❊ After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.

❊ When exiting without pressing set button, the manipulated value is not reflected.

- If reservation is set, 'turned off' indication shows up at the lower part of LCD screen, and air-conditioner product runs at the time that is set.
- If reservation is cancelled, 'turned off' indication disappears.

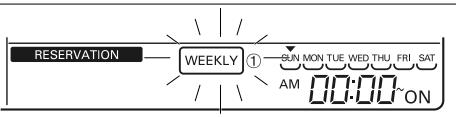
Programming : Weekly Reservation

You can set the daily reservation in weekly unit.

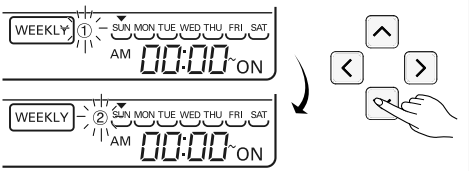
Weekly reservation keeps operating until before you cancel it once you setup

1 Please move to reservation setup mode by pressing reservation button.
❊You can setup two weekly reservations for one day, and up to fourteen reservations for a week.
For example, to setup (Tuesday morning 11:30 turned on ~ afternoon 12:30 turned off), you setup in order below.

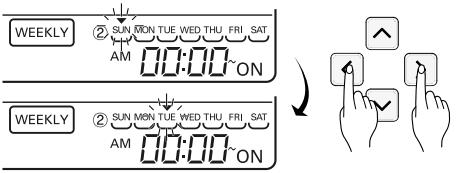
2 Please move to 'weekly' by repeatedly pressing reservation button. 'Weekly' blinks at this time.



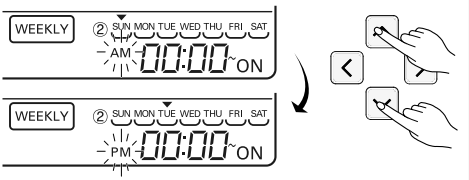
3 Please select weekly reservation ① or weekly reservation ② by using ∧ ∨ button.
❊You can setup two reservations, weekly reservation 1 and weekly reservation 2, for a day.



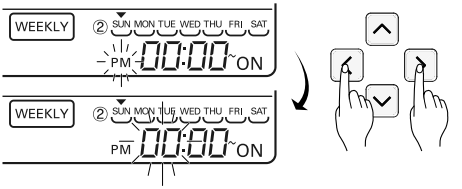
4 Please move to 'date' setup part by using < > button. If 'date' indication blinks, please setup date. You can setup date from Monday to Sunday.



5 Please move to 'AM/PM' setup part of turning on by using ∧ ∨ button.



6 Please move to 'hour' setup part of turning on by using < > button.
- It is the part to setup the time at which air-conditioner is turned on.

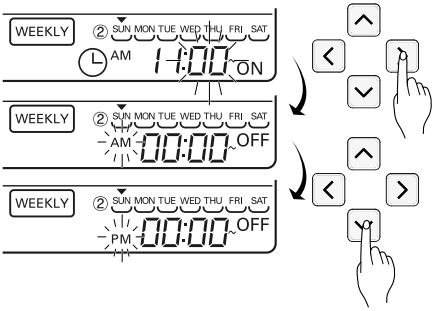


7 Please change time by using ∧ ∨ button.
- You can setup hour 0~12.

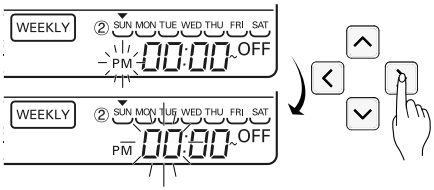
8 Please move to 'minute' setup part of turning on by using > button.

9 If 'minute' indication blinks, please setup 'minute' by using ∧ ∨ button

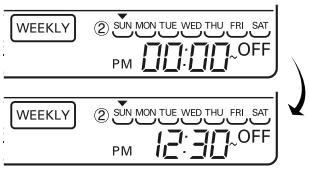
10 Please move to 'AM/PM' setup part of turning off by using [>] button.
- AM/PM setup is identical with turning on time setup.



11 Please move to 'hour' setup part of turning off by using Right button.
- It is the part to reserve the time at which air-conditioner is turned off.
- If 'hour' indication blinks, please setup 'hour'.



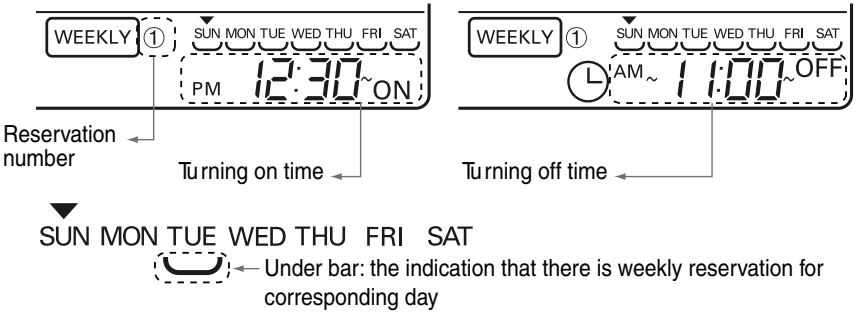
✻ Please setup 'hour' and 'minute' identically with the method to setup turning on time.



12 If finishing weekly reservation setup, please press setup/cancellation button. Weekly reservation setup for the day that you set is finished.

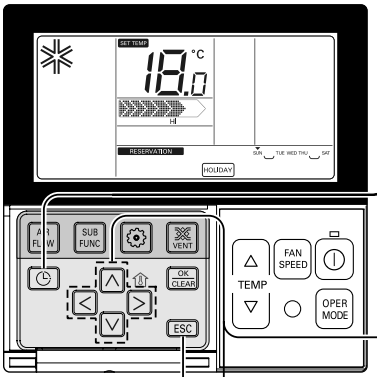
13 If you setup with the method identical with above by selecting the day that you'd like to setup, it operates weekly reservation.
If you setup both turning on reservation time and turning off reservation time identically, it doesn't operate reservation drive.

Weekly reservation explanation

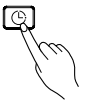


Programming : Holiday Reservation

It automatically stops at reserved day that you set.



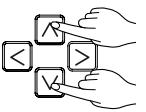
1 Please press ⏲ button.
It enters into reservation setup mode.



2 Please move to 'holiday' by repeatedly pressing ⏲ button.



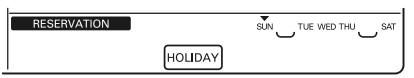
3 Please move to 'date' that you want to setup holiday by using < > button.



SUN MON TUE WED THU FRI SAT

SUN MON TUE WED THU FRI SA

4 Please appoint or cancel holiday by using ∧ ∨ or OK CLEAR button.
For example, when you setup Monday/Friday to holiday
- 'Monday', 'Friday' letter disappears.

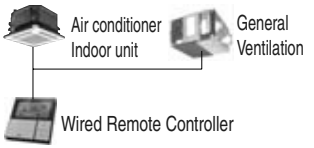
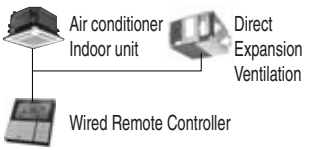


5 Please press ESC button if finishing holiday setup.

❊ If it comes to appointed holiday, air-conditioner automatically stops.
Once you setup holiday appointment, until before you cancel holiday setup, air-conditioner automatically stops within one hour even though you run air-conditioner.

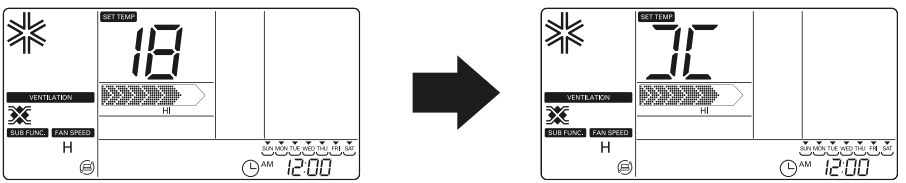
Ventilation Product User Manual - Interlinked Air conditioner and Ventilation

1. Control using remote controller where air conditioner indoor unit and the ventilation product is installed at the same time.

	Single Operation	Interlinked Operation
General Ventilation	(General Ventilation Single Operation) 	(General Ventilation Interlinked Operation) 
Direct Expansion Ventilation	(Direct Expansion Ventilation Single Operation) 	(Direct Expansion Ventilation Interlinked Operation) 

❊ Connecting wires is the same as air conditioner user manual. (Refer to page about Group control)

2. Press 'Ventilation' button on the wired remote controller and enter Ventilation control mode to check the operation of ventilation product.



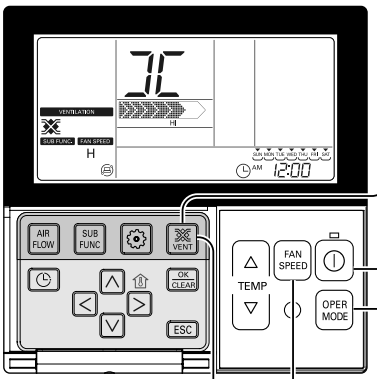
3. To convert back to air conditioner mode, press 'Ventilation' button at the ventilation mode.

- If no button pressed for 15 seconds or more at ventilation mode, it automatically converts back to air conditioner mode.
- Ventilation product represent general ventilation product and direct expansion ventilation product.

Ventilation Product User Manual - Interlinked operation with general ventilation

It is used when air conditioner is interlinked with ventilation product.

It is a function that cools and refreshes indoor air using the ventilation product at the same time operating the air conditioning function.



Ventilation interlinked operation

1 Press VENT button on the remote controller control panel.
- It is only used when air conditioner and general ventilation is interlinked.('Interlinked operation' displayed on the remote controller display)



2 Pressing 'Start/Stop' button at ventilation mode will start ventilation.

3 Pressing OPER MODE button will change the ventilation operation mode.
Pressing operation selection button will change the mode in the order of 'Heat exchange → normal → automatic'

❉ It only displays on the remote controller display when it is in ventilation mode, and it displays the desired temperature when it returns to air condition mode.



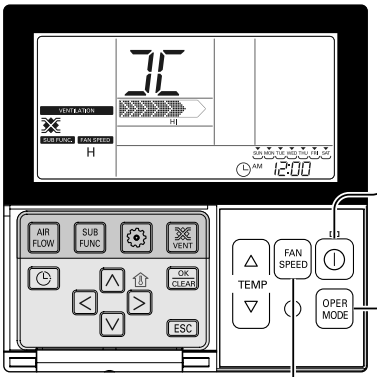
4 Pressing FAN SPEED button in general ventilation mode will change airflow speed.
Pressing airflow speed button will change the mode in the order of 'weak → strong → extra strong'.
If CO2 sensor is installed, it can select from 'weak → strong → very strong → automatic'.



5 Changing back to air conditioner mode
1)Automatic Conversion : when no button is pressed for 15 seconds or longer, it automatically converts back to air conditioner mode.
2) Manual Conversion : Pressing VENT button in ventilation mode will manually convert.

Manual Conversion - Pressing 'Ventilation' button in ventilation mode will manually convert

It is a function to cool and refresh the indoor air using general ventilation product..



Ventilation single operation

1 Press ⏻ button on the remote controller.



2 Pressing OPER MODE button will change the ventilation mode.



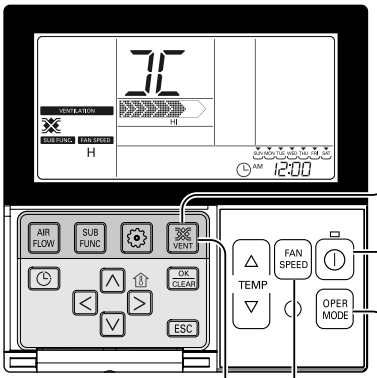
Ventilation mode	Remote Controller Display	Contents
Heat exchange	JC	Circulate indoor air without loss of heat
Normal	CJ	Directly circulate indoor air without going through heat exchanger
Automatic	AU	Circulate indoor air with automatically comparing indoor and outdoor air

3 Pressing FAN SPEED button will change the strength of the wind
- Pressing the button can select from 'weak → strong → very strong'.
- If CO2 sensor is installed, it can select from 'weak → strong → very strong → automatic'.



Ventilation Product User Manual - Interlinked Operation with Direct Expansion Ventilation

It can only be used when the air conditioner is interlinked with direct expansion ventilation product.



Interlinked Operation with Direct Expansion Ventilation

1 Press VENT button on the remote controller.
- It is used only when air conditioner and the ventilation product are interlinked. ('Interlinked operation' displayed on the remote controller display)



2 Pressing ⏻ button in ventilation mode starts ventilation.



3 Pressing OPER MODE button in ventilation mode will change the ventilation mode.
- Every time the button is pressed, it changes from 'Heat exchange → normal → automatic'.

❉ The display on the remote controller displays only when it is in ventilation mode, and when it converts to air conditioner mode, it displays the desired temperature.



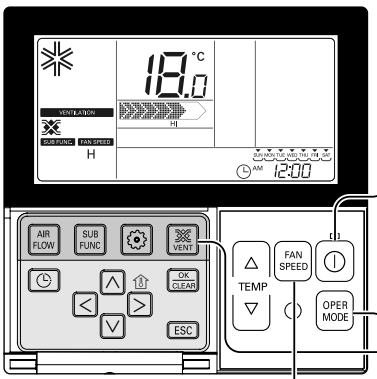
4 Pressing FAN SPEED button in ventilation mode changes the strength of wind.
- Pressing the button can select from 'weak → strong → very strong'.



5 Changing back to air conditioner mode
1) Automatic Conversion : when no button is pressed for 15 seconds or longer, it automatically converts back to air conditioner mode.
2) Manual Conversion : Pressing VENT button in ventilation mode will manually convert.

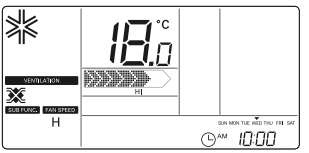
Ventilation Product User Manual - Single Operation with Direct Expansion Ventilation

Pressing It performs ventilation operation with cooling or heating at the same time using the heat exchanger inside the direct expansion type ventilation product.



Direct expansion type ventilation single operation

1 (⏻) button on the remote controller. It displays as the figure right side in the direct expansion type ventilation single operation.



2 Pressing (VENT) button will change the ventilation mode.
Pressing the button converts from 'heat exchange → normal → automatic'.

Ventilation mode	Remote Controller Display	Contents
Heat exchange	HE	Circulate indoor air without loss of heat
Normal	NO	Directly circulate indoor air without going through heat exchanger
Automatic	AU	Circulate indoor air with automatically comparing indoor and outdoor air

❊ The 88 segment display above is only displayed when it is in direct expansion type ventilation single operation and the air conditioner is stopped.

3 Pressing (OPER MODE) button will change operation mode.
- Pressing the button will convert from 'cooling → eating → automatic -> stop'.

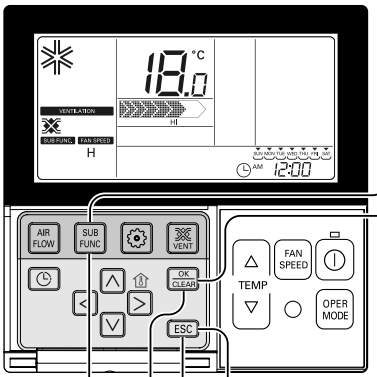
4 Pressing (FAN SPEED) button in ventilation mode changes the strength of wind.
- Pressing the button can select from 'weak → strong → very strong'.

❊ Cooling/heating operation selection and the desired temperature can be adjusted in direct expansion type ventilation single operation.

❊ Refer to the basic operation - temperature adjustment for changing desired temperature.

Ventilation Product Additional Operations - Fast / Power Saving

It is a function to operate ventilation function more efficiently through the ventilation additional functions, fast / power saving settings.

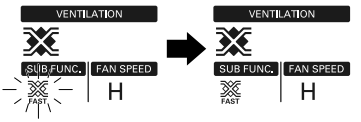


Fast : ventilates fast

1 Press SUB FUNC button in ventilation mode.
- It converts in the order of 'fast → power saving' in ventilation mode.



2 'Fast' is blinking on the display, and pressing OK CLEAR button will stabilize 'fast' icon, and the function is set.





3 Pressing ESC button will exit the settings.

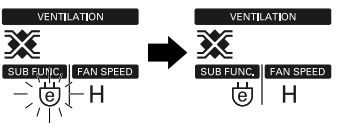


Power Saving : efficiently ventilates and performs power savings.

1 Press SUB FUNC button in ventilation mode.
- It converts in the order of 'fast → power saving' in ventilation mode.



2 'Power Saving' is blinking on the display, and pressing OK CLEAR button will stabilize 'Power Saving' icon, and the function is set.





3 Pressing ESC button will exit the settings.

❊ General ventilation and direct expansion ventilation have the same additional functions.

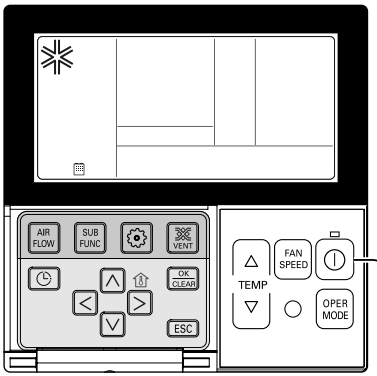
❊ Ventilation/Heater/Humidifier additional function settings are the same as air conditioner.



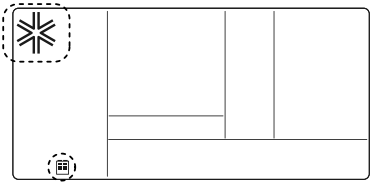
Different mode drive

Different mode drive is a phenomenon taking place when indoor units' drive mode is different in the case that a few indoor units are set up at one AHU.

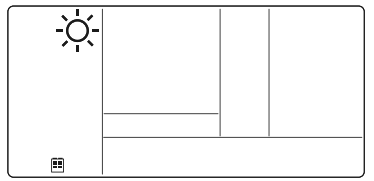
(Different mode drive doesn't show up at cooling exclusive model.)



1 While a few indoor units are running air-cooling at one AHU, it doesn't operate heating drive if one indoor unit operates heating drive.



2 While a few indoor units are running heating at one AHU, it doesn't run if one indoor unit runs cooling or humidity removal.
It is the indication that it is operating heating drive at AHU.



3 If pressing ⏻ button, indoor unit automatically runs at the mode that different indoor units are running after about 5 seconds and operates.



Checkups before reporting breakdown

Please first check the items below for product's defects before consulting to service center.

Symptoms	Check-up	Management
It has no power on.	• Is air-conditioner's power on?	• Please check up circuit breaker. • Please check up wire remote controller's setup condition.
	• Are air-conditioner and remote controller properly connected with cable?	• Please connect air-conditioner and remote controller cable.
	• Is cable connection correct?	• Please check again referring to setup method at the manual.
It doesn't operate reservation drive.	• Did you correctly setup time?	• Please set up current time correctly.
	• Did you correctly make a reservation?	• Please set up again referring to the manual.
It doesn't release cool wind.	• Is desired temperature setup lower than current temperature?	• Please set up desired temperature lower than current temperature.
Air-conditioner automatically runs or stops.	• Isn't reservation drive setup?	• Please cancel reservation drive.
Error is indicated on remote controller indication window.	• Does remote controller indication window indicate 'CH03'?	• Please check again wire remote controller's setup condition. • Please check again connection condition of air-conditioner and remote controller cable.

Maintenance and Service

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

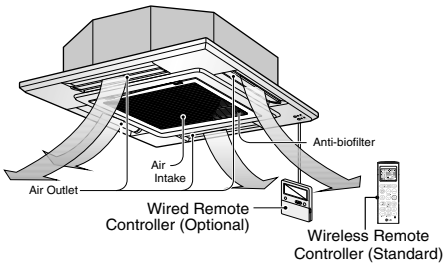
Indoor Unit

Grille, Case and Remote Control

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

NOTICE

Supply power 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 neccessary.



■ 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.



❶ **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.

❷ **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 (50°C or more) is used, it may be deformed.

❸ **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.

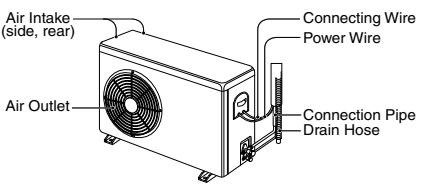
❹ **Install the air filter.**

Outdoor Unit

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

NOTICE

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



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

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

1. Operate the air conditioner at the following settings for 2 to 3 hours.

- Type of operation: Fan operation mode.
- This will dry out the internal mechanisms.

2. Turn off the breaker.

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

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

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

3. 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 your 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 fault persists, please contact your dealer or service center.

Case	Explanation	See page
The air conditioner does not operate.	• Have you made a mistake in timer operation?	13~28
	• 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 restarted.	• 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.	24
	• 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?	22
	• 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.	-
Remote control display is faint, or no display at all.	• Are the batteries depleted? • Are the batteries inserted in the opposite (+) and (-) directions?	-
Crack sound is heard.	• This sound is generated by the expansion/constriction of the front panel, etc. due to changes of temperature.	-
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.	-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Troubleshooting Tips! Save time and money!

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Case	Explanation	See page
The air conditioner does not operate.	• Have you made a mistake in timer operation?	21
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Does not cool or heat effectively.	• Is the air filter dirty? See air filter cleaning instructions.	33
	• 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?	15
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- *Type of operation: Fan operation mode.*
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2. Turn off the breaker.

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

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3. Check that the ground wire is connected correctly. It may be connect to the indoor unit side.

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Do not overcool the room.

This is not good for your health and wastes electricity.

Keep blinds or curtains closed.

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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.

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Since windows are kept closed, it is a good idea to open them and ventilate the room now and then.

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Grille, Case and Remote Controller

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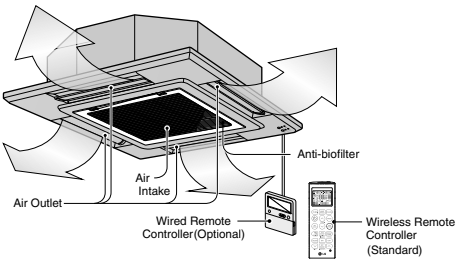
Supply power must be disconnected before cleaning the indoor unit.



Air Filters

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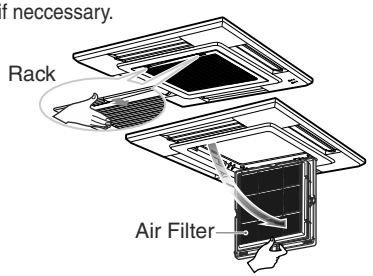

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❶ Remove the Air filters.

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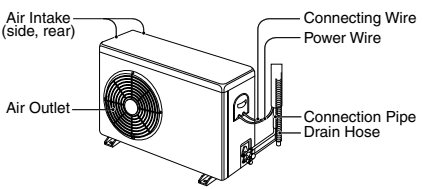
Dirty or clogged coils will reduce the operating efficiency of the system and cause higher operating costs.



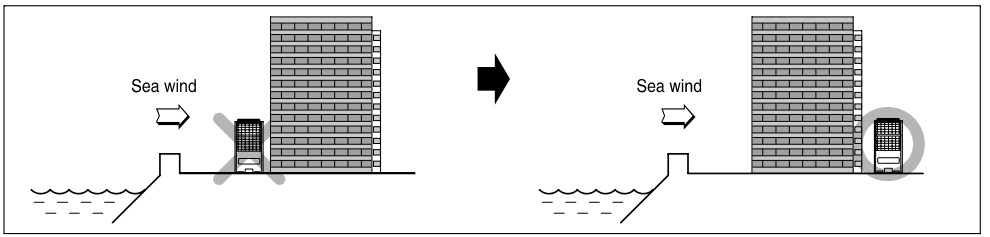
Installation guide at the seaside

CAUTION:

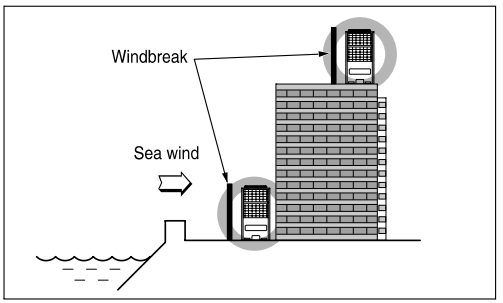
1. **Air conditioners should not be installed in areas where corrosive gases, such as acid or alkaline gas, are produced.**
2. **Do not install the product where it could be exposed to sea wind (salty wind) directly. It can result corrosion on the product. Corrosion, particularly on the condenser and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

Selecting the location(Outdoor Unit)

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



2) In case, to install the outdoor unit on the seaside, set up a windbreak not to be exposed to the sea wind.



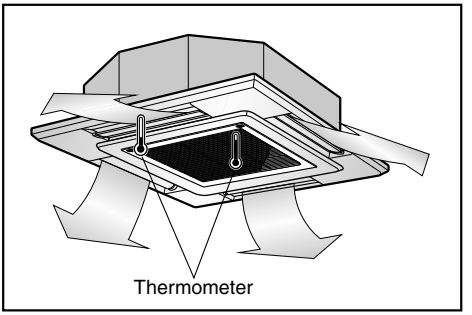
- It should be strong enough like concrete to prevent the sea wind from the sea.
- The height and width should be more than 150% of the outdoor unit.
- It should be keep more than 70 cm of space between outdoor unit and the windbreak for easy air flow.

3) Select a well-drained place.

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

3) Evaluation of the performance

1. Measure the temperature of the intake and discharge air.
2. Ensure the difference between the intake temperature and the discharge one is more than 8°C (Cooling) or reversely (Heating).



CAUTION

After the confirmation of the above conditions, prepare the wiring as follows:

1) Never fail to have an individual power specialized for the air conditioner. As for the method of wiring, be guided by the circuit diagram pasted on the inside of control box cover.
2) Provide a circuit breaker switch between power source and the unit.
3) 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 give rise to burn-out of the wires.)
4) Specification of power source
5) Confirm that electrical capacity is sufficient.
6) Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
7) Confirm that the cable thickness is as specified in the power sources specification. (Particularly note the relation between cable length and thickness.)
8) Never fail to equip a leakage breaker where it is wet or moist.
9) The following troubles would be caused by voltage drop-down.
   - Vibration of a magnetic switch, damage on the contact point there of, fuse breaking, disturbance to the normal function of a overload protection device.
   - Proper starting power is not given to the compressor.

HAND OVER

Teach the customer the operation and maintenance procedures, using the operation manual (air filter cleaning, temperature control, etc.).

3. Once the desired vacuum is created. Disconnect the vacuum pump and open the liquid side valve stem by turning it to counter-clockwise direction with service valve wrench.
4. Open completely the gas side valve buy turning to counter-clockwise with service valve wrench.
5. Remove slowly the charge hose connected to the gas side service port (to release the pressure).
6. Replace back the flare nut and its bonnet on the gas side service port. Fasten the flare nut with adjustable wrench to prevent any leakage from the system.
7. Fasten back the valve cap on both gas and liquid side service valves.

Test running

1) PRECAUTIONS IN TEST RUN

- The initial power supply must provide at least 90% of the rated voltage. Otherwise, the air conditioner should not be operated.

CAUTION:

- For test run, carry out the cooling operation firstly even during heating season. If heating operation is carried out firstly, it leads to the trouble of compressor. Then attention must be paid.
- Carry out the test run more than 5 minutes without fail. (Test run will be cancelled 18 minutes later automatically)

- The test run is started by pressing the room temperature checking button and down timer button for 3 seconds at the same time.
- To cancel the test run, press any button.

CHECK THE FOLLOWING ITEMS WHEN INSTALLATION IS COMPLETED

- After completing work, be sure to measure and record trial run properties, and store measured data, etc.
- Measuring items are room temperature, outside temperature, suction temperature, blow out temperature, wind velocity, wind volume, voltage, current, presence of abnormal vibration and noise, operating pressure, piping temperature, compressive pressure.
- As to the structure and appearance, check following items.

❑ Is the circulation of air adequate?
❑ Is the draining smooth?
❑ Is the heat insulation complete (refrigerant and drain piping)?
❑ Is there any leakage of refrigerant?
❑ Is the remote controller switch operated?
❑ Is there any faulty wiring?
❑ Are not terminal screws loosened?

M4.....118N·cm{12kgf·cm} M5.....196N·cm{20kgf·cm}
M6.....245N·cm{25kgf·cm} M8.....588N·cm{60kgf·cm}

2) Connection of power supply

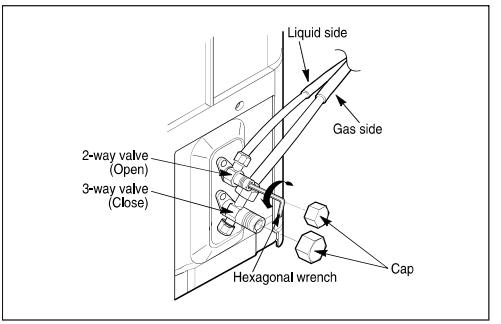
1. Connect the power supply cord to the independent power supply.
   - Circuit breaker is required.
2. Operate the unit for 15 minutes or more.

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

7. Check for leakage with Liquid soap solution. Do the leakage test at all joints of tubing (indoor and outdoor) and on the service valve (both gas and liquid side).

Soap water method

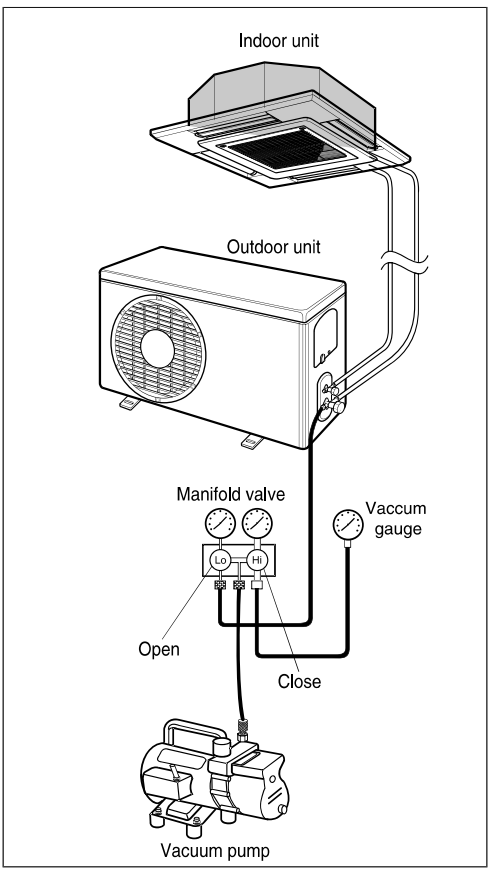
1. Remove the caps from the 2-way and 3-way valves.
2. Remove the service-port cap from the 3-way valve.
3. To open the 2-way valve turn the valve stem counterclockwise approximately 90°, wait for about 2~3 sec, and close it.
4. Apply a soap water or a liquid neutral detergent on the indoor unit connection or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping.
5. If bubbles come out, the pipes have leakage



Evacuation

1. If the system is found free from all leakages, relive the nitrogen pressure by loosening the charge hose connector at nitrogen cylinder. Disconnect the hose from cylinder when pressure reaches to normal state.
2. Evacuation: Connect the charge hose end to the vacuum pump and evacuate the connecting of the and indoor unit. Check that the “Lo” knob of manifold is open. Run the vacuum pump. Confirm the "Lo" knob of the manifold valve is open. Then, run the vacuum pump. The operation time for evacuation varies with tubing length and capacity of the pump.

- The degree of vacuum should be under 0.8 Torr.
- When the desired vacuum is reached, close the "Lo" knob of the manifold valve and stop the vacuum pump.

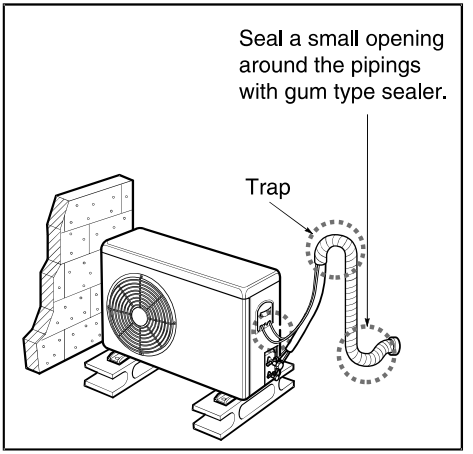


In case of the Outdoor Unit being installed above position of the Indoor Unit.

4. **Tape the Pipings and Connecting cable from bottom to top.**

5. **Form the pipings gathered by taping along the exterior wall, and make the trap prevent water from entering into the room.**

6. **Fix the pipings onto the wall by saddle or equivalent.**



Air Purging

Air purging

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

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

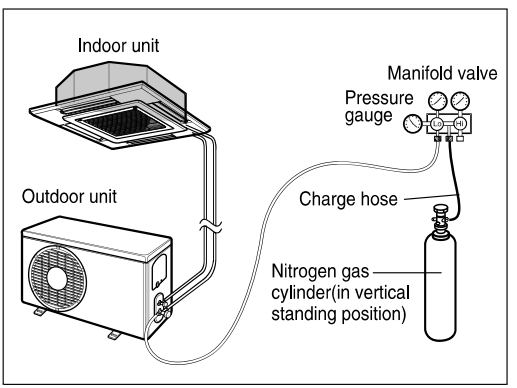
Therefore, after evacuating the system, take a leak test for the piping and tubing between the indoor and outdoor unit.

Air purging with vacuum pump

1. Check that both liquid and gas pipe between indoor and outdoor have been properly connected.
2. Remove the service valve cap from both the gas and liquid side on the outdoor unit.
3. Confirm that both the liquid and gas side valve are set to the closed position.
4. Connect the manifold valve(with pressure gauge) to the gas pipe side.

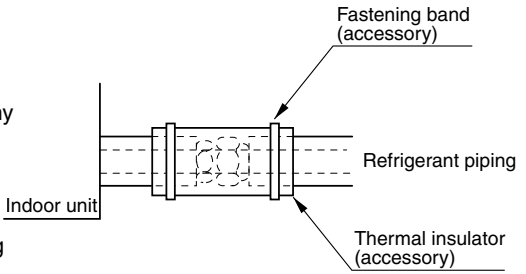
CAUTION:
: Be sure to use a manifold valve for air purging. If it is not available, use a stop valve for this purpose. The "Hi" knob of the manifold valve must always be kept close.

5. And connect the Nitrogen cylinder to the service port with charge hoses to the manifold gauge.
6. Pressurize the system to no more than 150 P.S.I.G with dry nitrogen gas. Close the nitrogen cylinder valve when it shows reading of 150 P.S.I.G.



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:



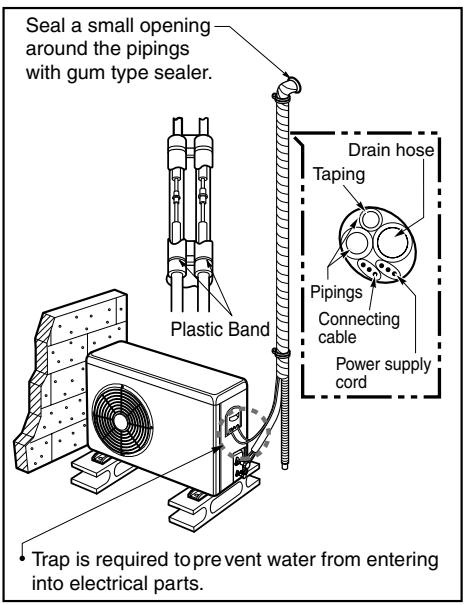
- Heat insulation material to be prepared... Adiabatic EPDM or NBR with thickness 10 to 20mm.
- Stick EPDM or NBR on all air conditioners that are located in ceiling atmosphere.
- In addition to the normal heat insulation (thickness: more than 8mm) for refrigerant piping (gas piping: thick piping) and drain piping, add further 10mm to 30mm thickness material.

FORM THE PIPINGS

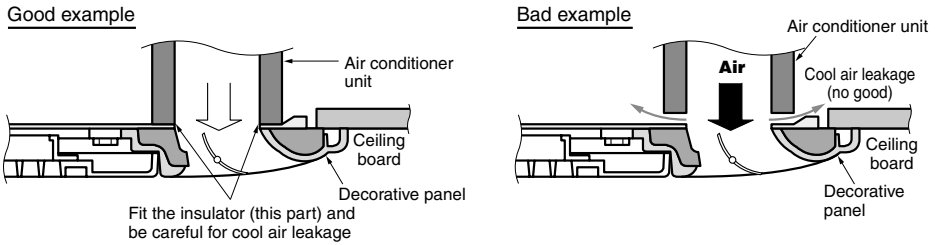
1. Wrap the connecting portion of indoor unit with the Insulation material and secure it with two Plastic Bands. (for the right pipings)
   - If you want to connect an additional drain hose, the end of the drain-outlet should keep distance from the ground. (Do not dip it into water, and fix it on the wall to avoid swinging in the wind.)

In case of the Outdoor unit being installed below position of the Indoor unit.

2. Tape the Pipings, drain hose and Connecting Cable from bottom to top.
3. Form the pipings gathered by taping along the exterior wall and fix it onto the wall by saddle or equivalent.



CAUTION: Install certainly the decorative panel.
Cool air leakage causes sweating. ⇨ Water drops fall.

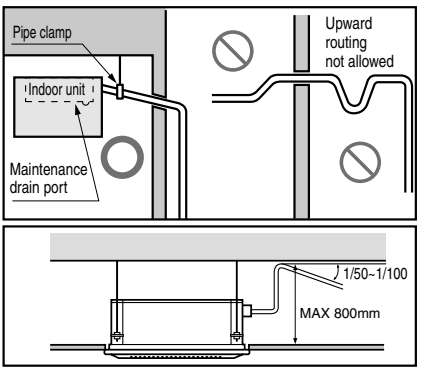


Indoor Unit Drain Piping

- 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

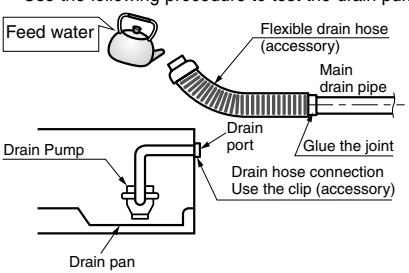
- Be sure to execute heat insulation on the drain piping.



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

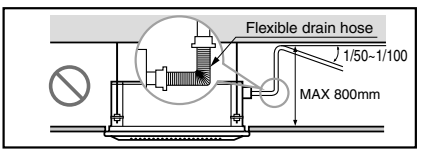
Drain test

The air conditioner uses a drain pump to drain water.
Use the following procedure to test the drain pump operation:

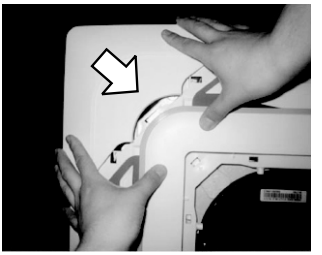


- Connect the main drain pipe to the exterior and leave it provisionally until the test comes to an end.
- Feed water to the flexible drain hose and check the piping for leakage.
- Be sure to check the drain pump for normal operating and noise when electrical wiring is complete.
- When the test is complete, connect the flexible drain hose to the drain port on the indoor unit.

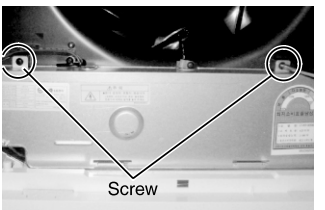
CAUTION: The supplied flexible drain hose should not be curved, neither screwed. The curved or screwed hose may cause a leakage of water.



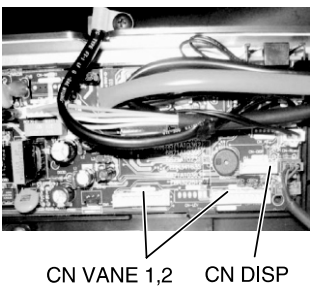
5. Fit the corner covers.



6. Open two screws of control panel cover.



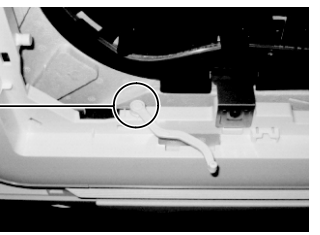
7. Connect one display connector and two vane control connectors of front panel to indoor unit PCB.
   The position marking on PCB is as:
   Display connector : CN-DISP
   Vane control connector: CN-VANE 1,2



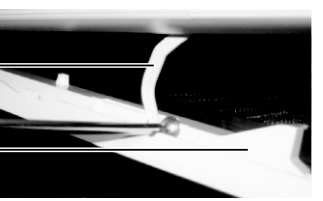
8. Close the cover for control box.



9. Fit the link on the panel as shown in picture. (The link is included in the front panel unit box.)



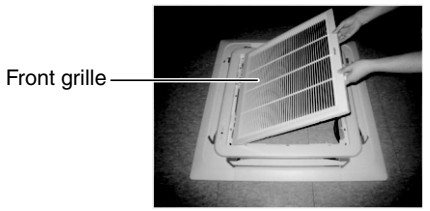
10. Attach the other side of link on the filter guide of inlet grille. Install the air inlet grille and filter on the panel.



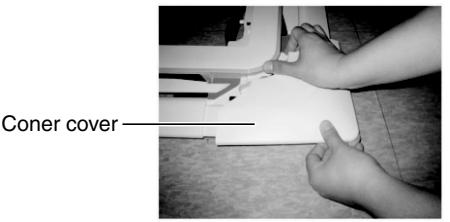
Installation of Decorative Panel

The decorative panel has its installation direction.
Before installing the decorative panel, always remove the paper template.

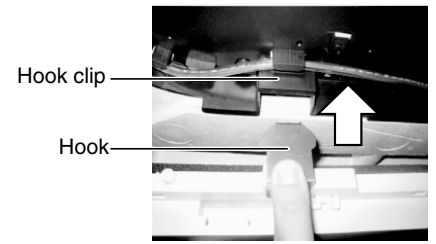
1. Remove the packing and take out air inlet grille from front panel.



2. Remove the Corner covers of the panel.



3. Fit the panel on the unit by inserting hooks as shown in picture.



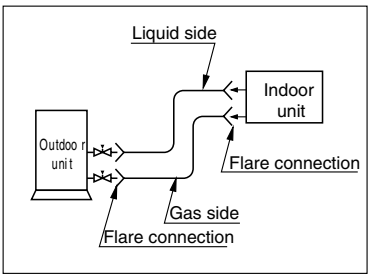
4. Insert two screws on diagonal corners of panel. Do not tighten the bolts completely. (The fixing screws are included in the indoor unit box.)
   Check the alignment of panel with the ceiling. Height can be adjusted using hanging bolts as shown in picture. Insert the other two screws and tighten all screws completely.





Piping Connection

1. Form the piping according to its routing. Avoid bending and bending back the same piping point more than three times. (This will result in hardening the pipe.)
2. After deforming the piping, align centers of the union fitting of the indoor unit and the piping, and tighten them firmly with wrenches.
3. Connect pipe to the service valve or ball valve which is located below the outdoor unit.
4. After completing the piping connection, be sure to check if there is gas leakage in indoor and outdoor connection.



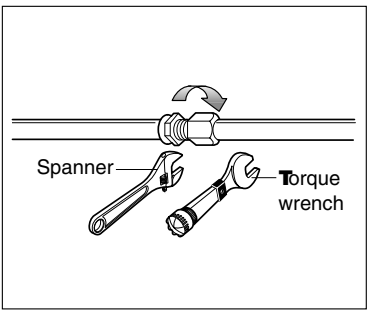
Vacuum drying

After completing the piping connection, execute vacuum drying for the connecting piping and the indoor unit.
The vacuum drying must be carried out using the service ports of both the liquid and gas side valves.

Grade	Liquid side piping	Gas side piping
18k	Ø6.35mm	Ø12.7mm
24k	Ø6.35mm	Ø15.88mm
36k	Ø9.52mm	Ø15.88mm
48k	Ø9.52mm	Ø19.05mm

CAUTION: Use two wrenches and tighten with regular torque.

Flare nut fastening torque	
Ø6.35mm	1.8~2.5 kgf·m
Ø9.52mm	3.4~4.2 kgf·m
Ø12.7mm	5.5~6.6 kgf·m
Ø15.88mm	6.3~8.2 kgf·m
Ø19.05mm	9.9~12.1 kgf·m



Connecting Pipes to the Indoor Unit

• Preparation of Piping

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

1) Cut the pipes and the cable.

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

2) Burrs removal

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

3) Putting nut on

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

4) Flaring work

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

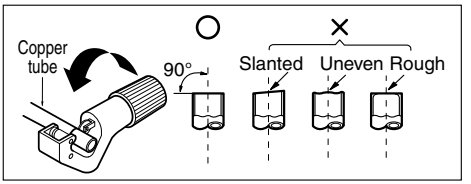
Outside diameter		A
mm	inch	mm
Ø6.35	1/4	1.1~1.3
Ø9.52	3/8	1.5~1.7
Ø12.7	1/2	1.6~1.8
Ø15.88	5/8	1.6~1.8
Ø19.05	3/4	1.9~2.1

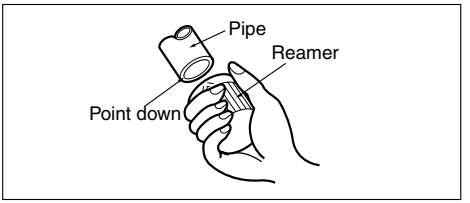
Firmly hold copper tube in a bar(or die) as indicated dimension in the table above.

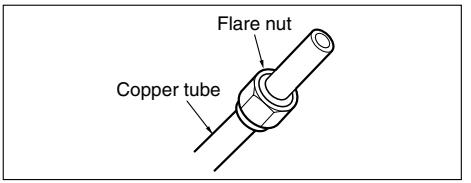
5) Check

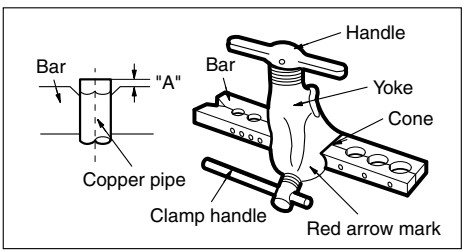
- Compare the flared work with figure below.
- If flare is noted to be defective, cut off the flared section and do flaring work again.

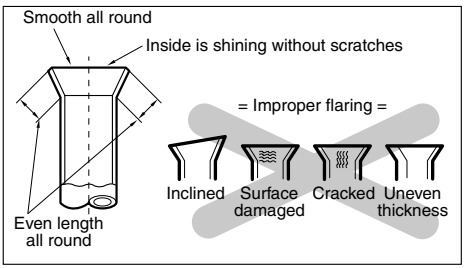
- If the piping and the drain hose are in common direction bundle the piping and the drain hose together by wrapping them with vinyl tape.

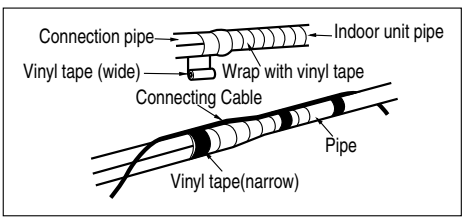






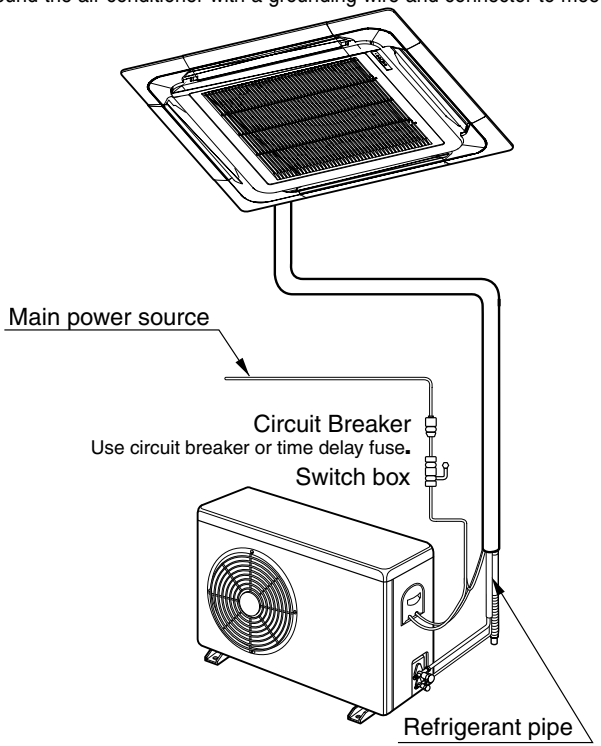






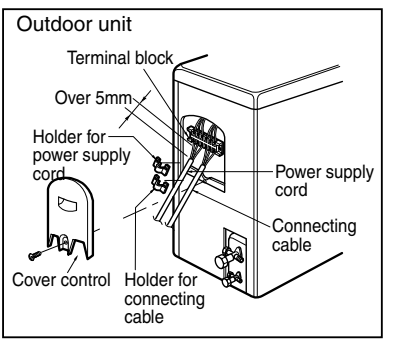
ELECTRICAL WIRING

1. All wiring must comply with LOCAL REGULATIONS.
2. Select a power source that is capable of supplying the current required by the air conditioner.
3. Feed the power source to the unit via a distribution switch board designed for this purpose.
4. The terminal screws inside the control box may be loose due to vibration during transport.
   Check the screws for loose connection.
   (Running the air conditioner with loose connection can overload and damage electrical components.)
5. Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.



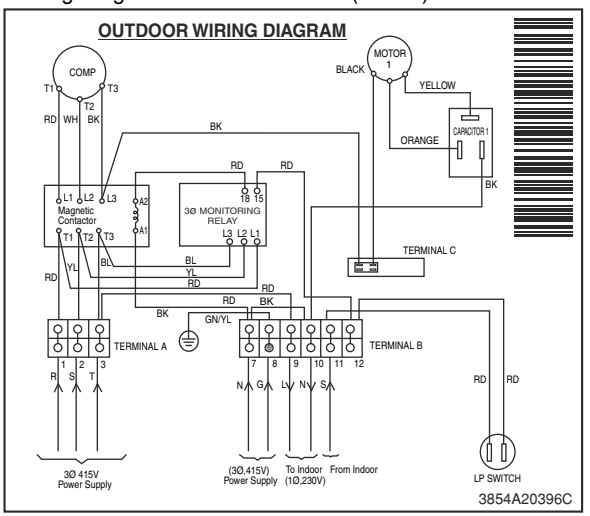
CONNECTING THE CABLE TO OUTDOOR UNIT

1. Remove the Cover control from the unit by loosening a screw.
   Connect the wires to the terminals on the control board individually as following.
2. Secure the cable onto the control board with the holder (clamper).
3. Refix the cover control to the original position with the screw.
4. Use a recognized circuit breaker between the power source and the unit.
   a disconnecting device to adequately disconnect all supply lines must be fitted.

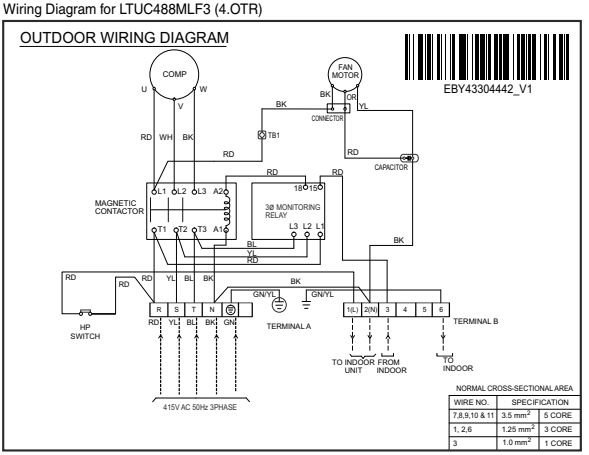


	Grade		
Circuit Breaker (A)	18/24k	36k	48k
	25	20	25
	1Ø	3Ø	3Ø

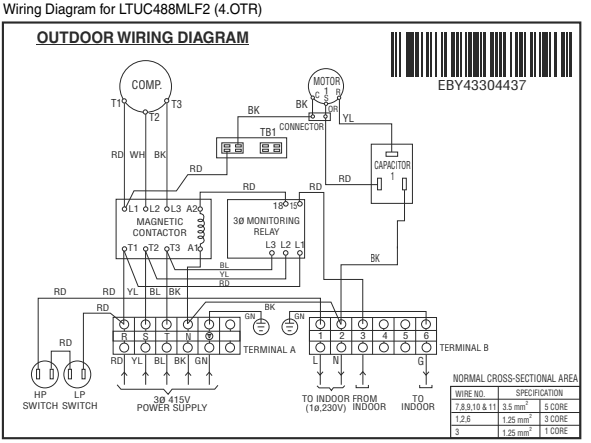
Wiring Diagram for LTUC368NLF1 (3.OTR)



Wiring Diagram for LTUC488MLF3 (4.OTR)



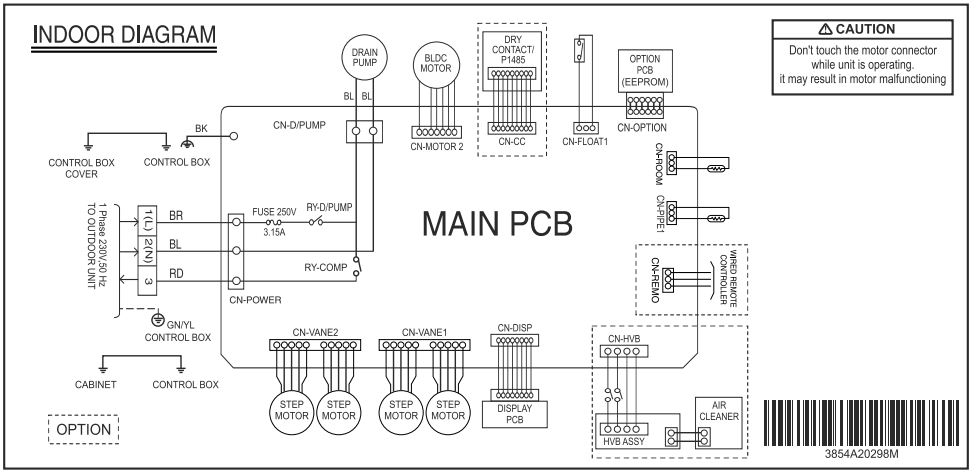
Wiring Diagram for LTUC488MLF2 (4.OTR)



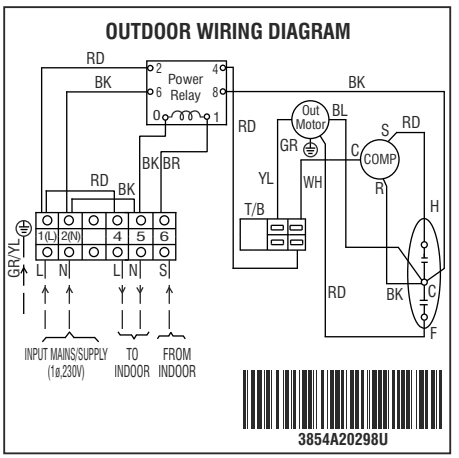
Wiring Diagram

Indoor Wiring Diagram Common for all models

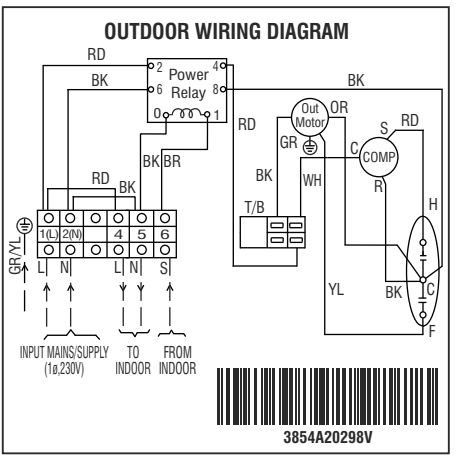
LTNC186PLF3 (1.5TR) / LTNC246PLF3 (2.0TR) / LTNC368NLF1 (3.0TR) / LTNC488MLF3, LTNC488MLF2 (4.0TR)



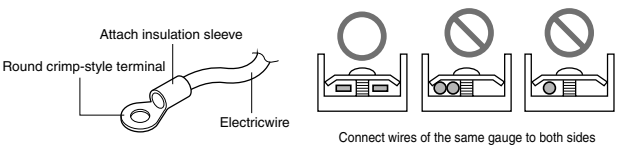
Outdoor Wiring Diagram for LTUC186PLF3 (1.5TR)



Outdoor Wiring Diagram for LTUC246PLF3 (2.0TR)

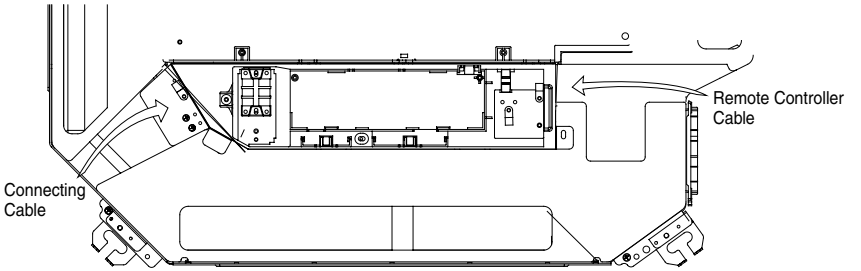


WARNING: Make sure that the screws of the terminal are free from looseness.

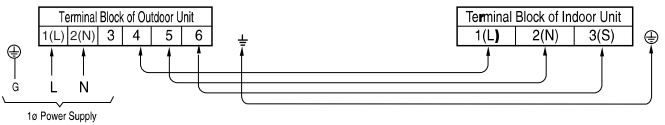


Wiring Connection

• Open the control box cover and connect the Remote controller cord and Indoor power wires.



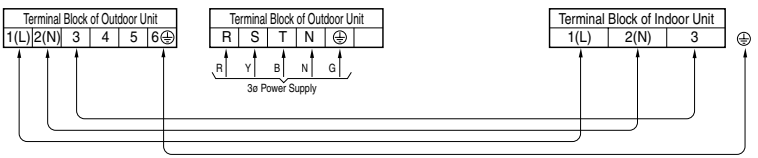
1 Phase
18k / 24k



3 Phase
36k

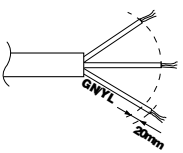


3 Phase
48k

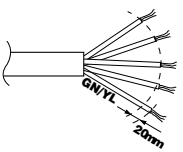


CAUTION

The power cord connected to the outdoor unit should be complied with the IS approved makers.

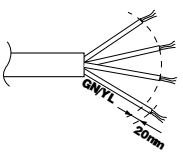


Capacity	1 Phase
24k	2.5mm^2



Capacity	3 Phase
36k	2.5mm^2
48k	3.5mm^2

The connecting cable connected to the indoor and outdoor unit should be complied with the IS approved makers



NORMAL CROSS-SECTIONAL

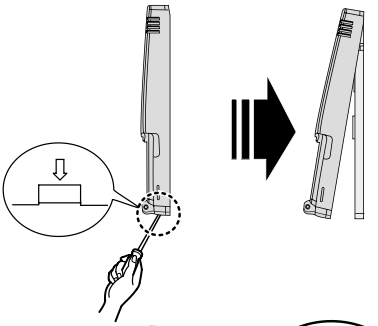
Capacity	1 Phase
24k/36k	0.75mm^2
48k	1.25mm^2

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

Wide LCD Wired Remote Control Installation (Optional)

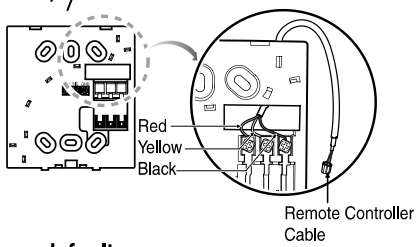
1. Disassemble the remote controller from the installation board.

• Use the driver as shown in the right picture and insert it into the hole with the arrow. And then you pull the driver in the front direction, the remote controller will be separated.



2. Connect the remote controller cable to the wired remote controller installation board as shown in the right picture.

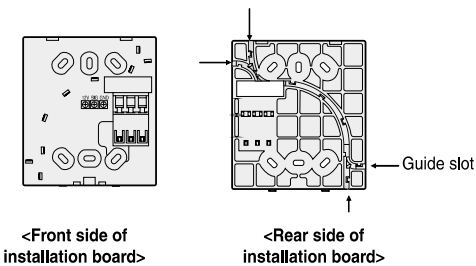
12V	Red wire
SIG	Yellow wire
GND	Black wire



※ **The remote controller cable is connected as factory default.**

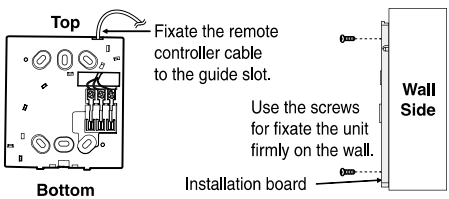
3. After fixing the cable to the guide slot, attach the wired remote controller installation board at the desired location.

• Before fixing the remote controller cable to the guide slot, remove any clogged part of the case in the direction to install before the installation.

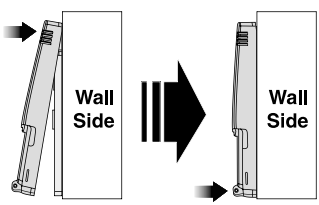


4. After locating the wired remote controller installation board at the desired location, screw the unit firmly. (When there is a buried box, install the wired remote controller board to fit the buried box.)

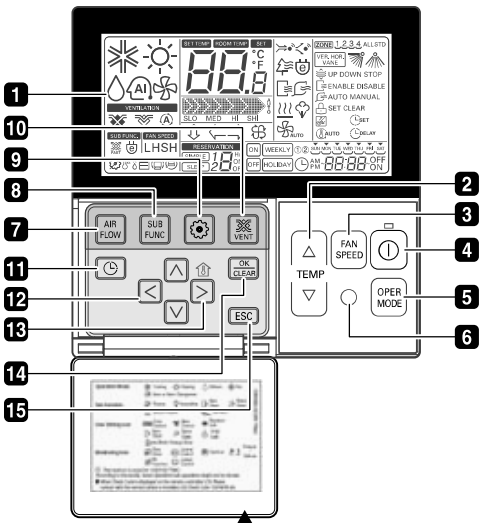
• Use the screw provided.



5. After fixing the top part of the remote controller to the installation board as shown in beside picture, press the bottom part to assemble the controller to it's board.



Wide LCD Wired Remote Controller (Optional)

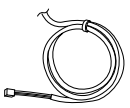


Please attach the inform label inside of the door.
Please choose proper language depend on your country.

1. **OPERATION INDICATION SCREEN**
2. **SET TEMPERATURE BUTTON**
3. **FAN SPEED BUTTON**
4. **ON/OFF BUTTON**
5. **OPRATION MODE SELECTION BUTTON**
6. **WIRELESS REMOTE CONTROLLER RECEIVER**
   - Some products don't receive the wireless signals.
7. **AIR FLOW BUTTON**
8. **SUBFUNCTION BUTTON**
9. **FUNCTION SETTING BUTTON**
10. **VENTILATION BUTTON**
11. **RESERVATION**
12. **UP,DOWN,LEFT,RIGHT BUTTON**
    - To check the indoor temperature, press button.
13. **ROOM TEMPERATURE BUTTON**
14. **SETTING/CANCEL BUTTON**
15. **EXIT BUTTON**

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

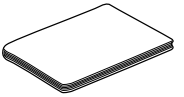
Accessory



Connection Cable
(1EA, 10m)



Screw
(4 EA)



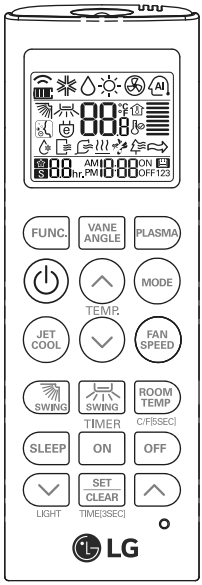
Owner's / Installation manual

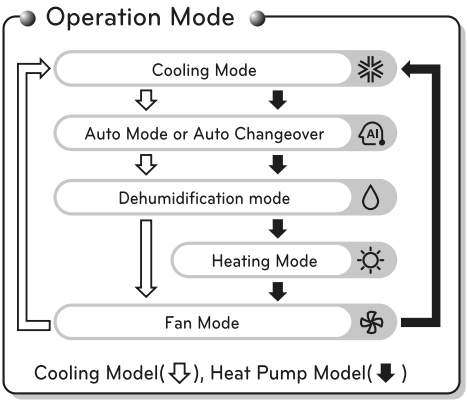


Inform label
(8EA-8Languages)

Wireless Remote Controller (Standard)

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





1 VANE ANGLE Button
Used to set each vane angle.

2 FUNCTION SETTING Button
Used to set or clear Auto Clean, Smart Clean, Electric heater or Individual vane angle control.

3 ON/OFF Button
Used to turn on/off the unit.

4 JET COOL Button
Speed cooling operates super high fan speed.

5 LEFT/RIGHT AIRFLOW Button (OPTIONAL)
Used to set the desired left/right(horizontal) airflow direction.

6 UP/DOWN AIRFLOW Button
Used to stop or start louver movement and set the desired up/down airflow direction.

7 ON TIMER Button
Used to set the time of starting operation.

8 SLEEP TIMER Button
Used to set the time of sleeping operation.

9 SET / CLEAR Button
Used to set/clear the timer.
Used to set the current time(if it input for 3sec.)

10 PLASMA Button (OPTIONAL)
Used to start or stop the plasma-purification function.

11 ROOM TEMPERATURE SETTING Button
Used to select the room temperature.

12 OPERATION MODE SELECTION Button
Used to select the operation mode.

13 INDOOR FAN SPEED SELECTION Button
Used to select fan speed in four steps low, medium, high and chaos.

14 ROOM TEMPERATURE CHECKING Button
Used to check the room temperature.

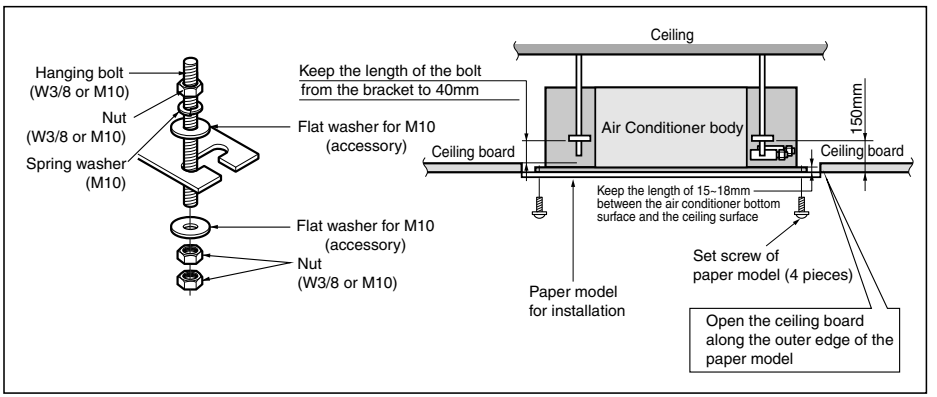
15 OFF TIMER Button
Used to set the time of stopping operation.

16 TIMER SETTING(Up/Down)/LIGHT Button
Used to set the timer.
Used to adjust the brightness.(if it is not time adjust mode)

17 RESET Button
Used to reset the remote controller.

**Heat Pump functions are optional, not applicable for Cooling only Model.

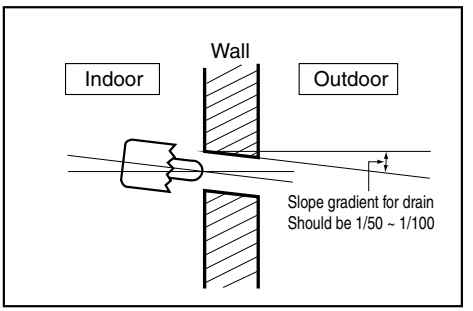
The Indoor Unit Installation



- The following parts is option.
  - ① Hanging Bolt - W 3/8 or M10
  - ② Nut - W 3/8 or M10
  - ③ Spring Washer - M10
  - ④ Plate Washer - M10

CAUTION: Tighten the nut and bolt to prevent unit falling.

- Drill the piping hole on the wall slightly tilted to the outdoor side using a Ø 70 hole-core drill.



Remote Controller Installation

- **Although the room temperature sensor is in the indoor unit, the remote controller should be installed in such places away from direct sunlight and high humidity.**

Installation of the remote controller

- Select places that are not splashed with water.
- Select control position after receiving customer approval.
- The room temperature sensor is built in the indoor unit.
- This remote controller equipped with liquid crystal display. If this position is higher or lower, display is difficult to see.(The standard height is 1.2 ~ 1.5m high)

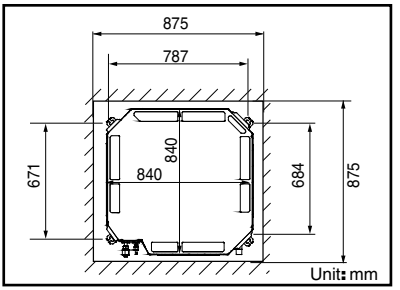
Routing of the remote controller cord

- Keep the remote controller cord away from the refrigerant piping and the drain piping.
- To protect the remote controller cord from electrical noise, place the cord at least 5cm away from other power cables (audio equipment, television set, etc.)
- If the remote controller cord is secured to the wall, provide a trap at the top of the cord to prevent water droplets from running.

Ceiling opening dimensions and hanging bolt location

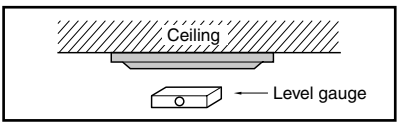
• The dimensions of the paper model for installing are the same as those of the ceiling opening dimensions.

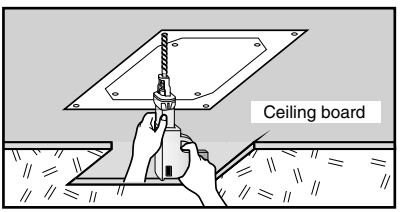
• Select and mark the position for fixing bolts and piping hole.
• Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
• Drill the hole for anchor bolt on the ceiling.
• The hole size for four anchor bolts is Ø 14.5mm & 40mm depth.



CAUTION:

- **This air-conditioner uses a drain pump.**
- **Horizontally install the unit using a level gauge.**
- **During the installation, care should be taken not to damage electric wires.**

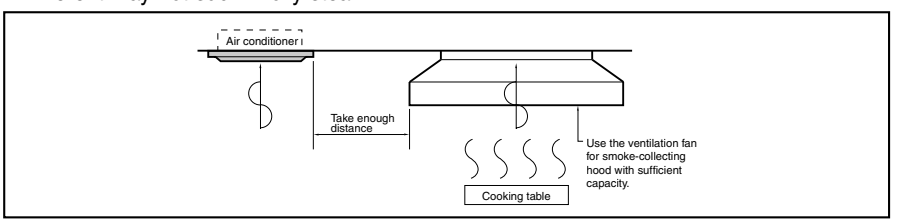




NOTICE

• Thoroughly study the following installation locations:

1. In such places as restaurants and kitchens, considerable amount of oil steam and flour adhere to the turbo fan, the fin of the heat exchanger and the drain pump, resulting in heat exchange reduction, spraying, dispersing of water drops, drain pump malfunction, etc. In these cases, take the following actions:
   • Make sure that the ventilation fan for smoke-collecting hood on a cooking table has sufficient capacity so that it draws oily steam which should not flow into the suction of the air conditioner.
   • Make enough distance from a cooking room to install the air conditioner in such a place where it may not suck in oily steam.



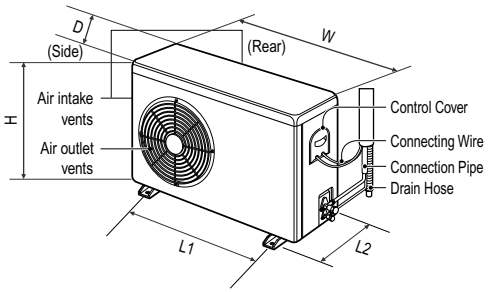
2. Avoid installing air conditioner in such circumstances where cutting oil mist or iron powder is in suspension in factories, etc.
3. Avoid places where inflammable gas is generated, flows in, is stored or vented.
4. Avoid places where sulfurous acid gas or corrosive gas is generated.
5. Avoid places near high frequency generators.

F). Outdoor Unit best location & piping.

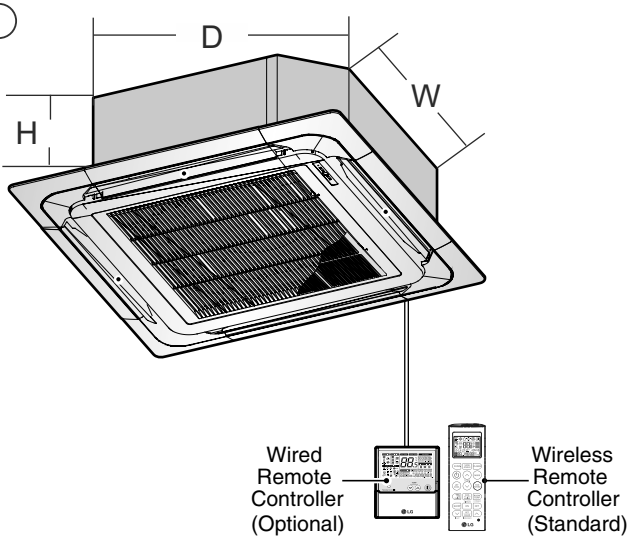
The heat exchanger coils and panel vents of the outdoor unit should be checked regularly. If clogged with dirt or soot, the heat exchanger and panel vents may be professionally steam cleaned.

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

Outdoor Unit



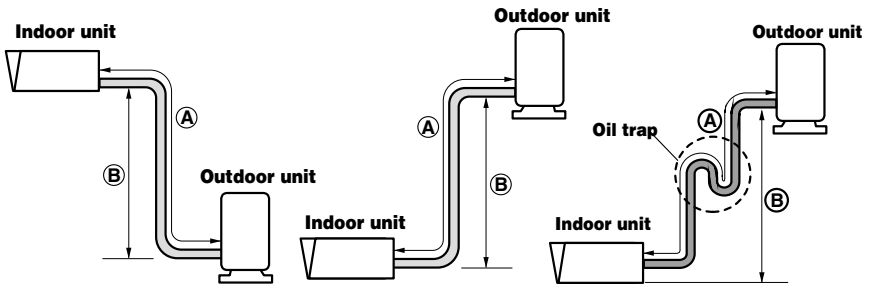
Indoor Unit



Model	Capacity	Indoor Dimension			Outdoor Dimnesion				
		W	D	H	W	D	H	L1	L2
LT-C186PLF3	1.5 TR	840	840	204	800	260	555	596	303
LT-C246PLF3	2 TR	840	840	204	870	320	655	545	350
LT-C368NLF1	3 TR	840	840	246	870	320	655	545	350
LT-C488MLF3 / LT-C488MLF2	4 TR	840	840	288	950	330	834	620	360

3) Piping length and the elevation

Model	Pipe Size mm(inch)		Length A(m)		Elevation B(m)		*Additional refrigerant (g/m)
	Gas	Liquid	Standard	Max.	Standard	Max.	
LT-C186PLF3	12.7 (1/2")	6.35(1/4")	7.5	30	5	15	20
LT-C246PLF3	15.88 (5/8")	6.35(1/4")	7.5	30	5	15	25
LT-C368NLF1	15.88 (5/8")	9.52(3/8")	7.5	30	5	15	50
LT-C488MLF3 / LT-C488MLF2	19.05(3/4")	9.52(3/8")	7.5	30	5	15	50



If piping length is more than 10m

CAUTION:
- **Rated performance for refrigerant line length of:7.5m**
- **Capacity is based on standard length and maximum allowance length is on the basis of reliability.**
- **Improper refrigerant charge may result in abnormal cycle.**
- **Oil trap should be installed every 10 meters.**

Model Weight

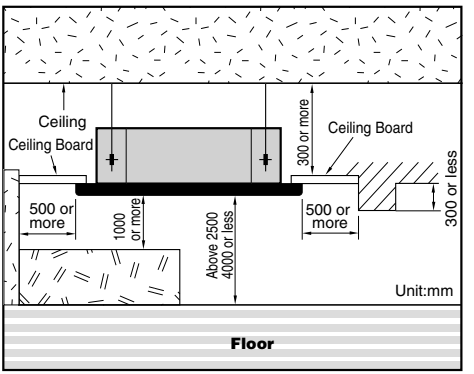
Model	Capacity	Weight(kg)	
		Indoor	Outdoor
LT-C186PLF3	1.5 Ton	20	40.00
LT-C246PLF3	2.0 Ton	20	52.00
LT-C368NLF1	3.0 Ton	23.3	60.00
LT-C488MLF3 / LT-C488MLF2	4.0 Ton	25.6	70.00 / 76.00

Installation of Indoor, Outdoor Unit

Selection of the best location

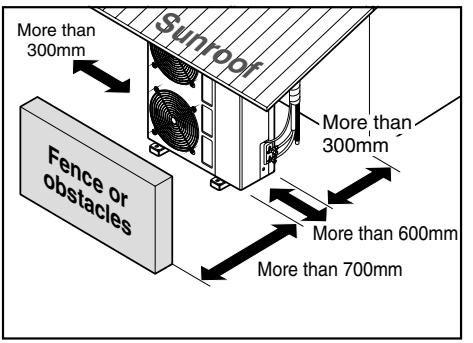
1) Indoor unit

- There should not be any heat source or steam near the unit.
- There should not be any obstacles to prevent the air circulation.
- A place where air circulation in the room will be good.
- A place where drainage can be easily obtained.
- A place where noise prevention is taken into consideration.
- Do not install the unit near the door way.
- Ensure the spaces indicated by arrows from the wall, ceiling, or other obstacles.
- The indoor unit must keep the maintenance space.



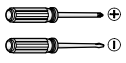
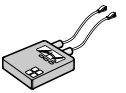
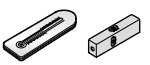
2) Outdoor unit

- If an awning is built over the unit to prevent direct sunlight or rain exposure, be careful that heat radiation from the condenser is not restricted.
- There should not be any animals or plants which could be affected by hot air discharged.
- Ensure the spaces indicated by arrows from the wall, ceiling, fence or other obstacles.



Installation

Installation Tools

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

Introduction

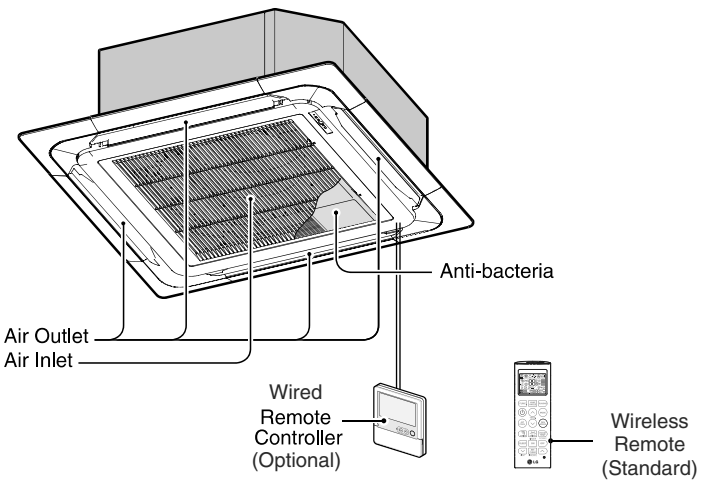
Symbols used in this Manual

This symbol alerts you to the risk of electric shock.

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

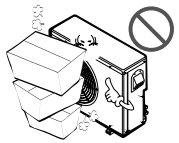
NOTICE **This symbol indicates special notes.**

Features



Do not block the inlet or outlet of air flow.

• It may cause product failure.



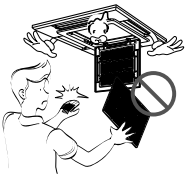
Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.

• There is risk of fire, electric shock, or damage to the plastic parts of the product.



Do not touch the metal parts of the air filter. They are very sharp!

• There is risk of personal injury.



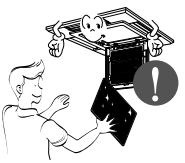
Do not step on or put anyting on the product. (outdoor units)

• There is risk of personal injury and failure of product.



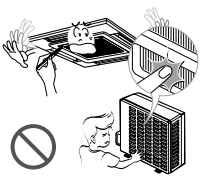
Always insert the filter securely. Clean the filter every two weeks or more often if necessary.

• 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.



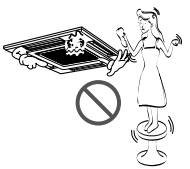
Do not drink the water drained from the product.

• It is not sanitary and could cause serious health issues.



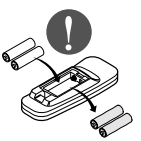
Use a firm stool or ladder when cleaning or maintaining the product.

• Be careful and avoid personal injury.



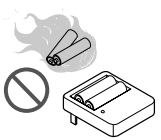
Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries.

• 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.



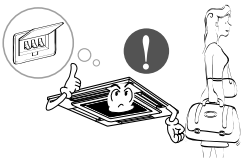
If the liquid from the batteries gets onto your skin or clothes, wash it well with clean water. Do not use the remote if the batteries have leaked.

• The chemicals in batteries could cause burns or other health hazards.



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.

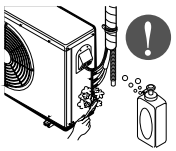


⚠CAUTION

■ Installation

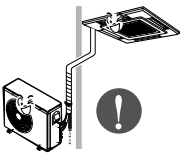
Always check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.



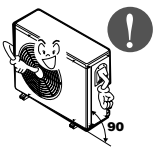
Install the drain hose to ensure that water is drained away properly.

- 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.



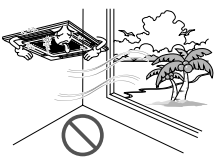
Use two or more people to lift and transport the product.

- 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

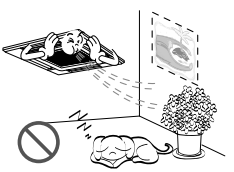
Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.)

- 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 allow water to run into electric parts.

- It may cause There is risk of fire, failure of the product, or electric shock.



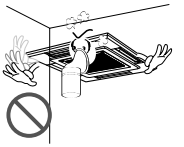
Do not store or use flammable gas or combustibles near the product.

- There is risk of fire or failure of product.



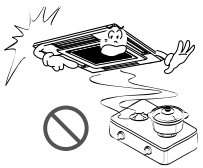
Do not use the product in a tightly closed space for a long time.

- 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



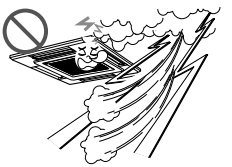
If strange sounds, or small or smoke comes from product. Turn the breaker off or disconnect the power supply cable.

- 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.



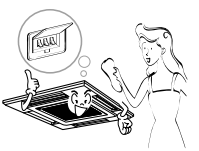
Ventilate the product from time to time when operating it together with a stove, etc.

- There is risk of fire or electric shock.



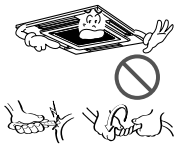
Turn the main power off when cleaning or maintaining the product.

- There is risk of electric shock.



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.



■ Operation

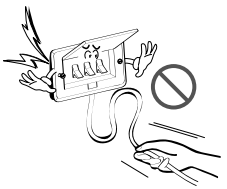
Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.

- Moisture may condense and wet or damage furniture.



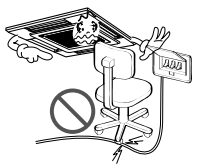
Take care to ensure that power cable could not be pulled out or damaged during operation.

- There is risk of fire or electric shock.



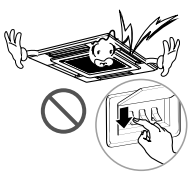
Do not place anything on the power cable.

- 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.



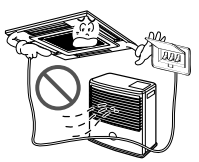
Do not touch(operate) the product with wet hands.

- 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.



Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠CAUTION	This symbol indicates the possibility of injury or damage.

■ Meanings of symbols used in this manual are as shown below.

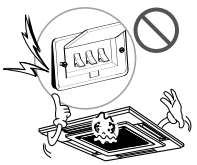
⃠	**Be sure not to do.**
❗	**Be sure to follow the instruction.**

⚠WARNING

■ Installation

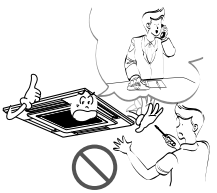
Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.

- There is risk of fire or electric shock.



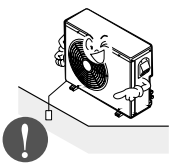
For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

- 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.



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Required Parts

- ❏ Connecting cable
- ❏ Pipes: Gas side
  Liquid side
- ❏ Hanging Bolt
  (W 3/8 or M10 length 650mm)
- ❏ Insulated drain hose
- ❏ Additional Drain hose
  (Inner Dia.....32mm)

Required Tools

- ❏ Horizontal meter
- ❏ Screw driver
- ❏ Electric drill
- ❏ Hole core drill (ø70mm)
- ❏ Flaring Tools set
- ❏ Torque Wrenches
- ❏ Hexagonal Wrench (4mm, 5mm)
- ❏ Gas-leak detector
- ❏ Owner's Manual
- ❏ Installation Manual
- ❏ Thermometer

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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.

TYPE : Highlander Ceiling Cassette Air Conditioner

For single cassette export models



MFL62865705

P/No. : MFL62865705_v2

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