

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 : CEILING CONCEALED DUCT



P/NO : MFL67855406

www.lg.com

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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.

Be cautious when unpacking and installing the product.

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.

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

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

Do not install the product on a defective installation stand.

- It may cause injury, accident, or damage to the product.

Be sure the installation area does not deteriorate with age.

- If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.

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

- Moisture may condense and wet or damage furniture.

■ Operation

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

- There is risk of fire or failure of product.

⚠ 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.

Introduction

Symbols Used in this Manual



This symbol alerts you to the risk of electric shock.

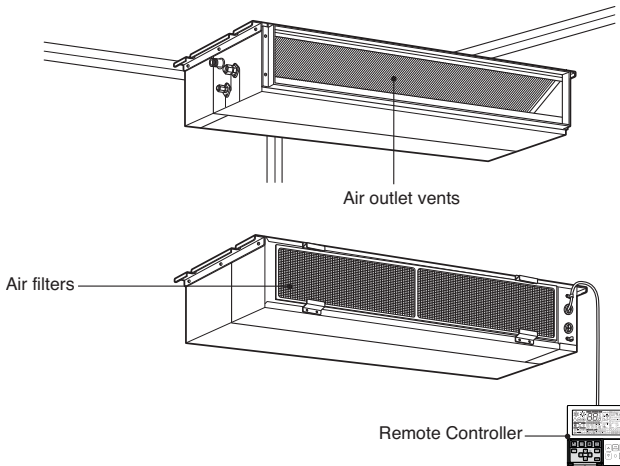


This symbol alerts you to hazards that could cause harm to the air conditioner.

NOTICE

This symbol indicates special notes.

Features



Installation of Indoor

Selection of the best location

Indoor unit

Install the air conditioner in the location that satisfies the following conditions.

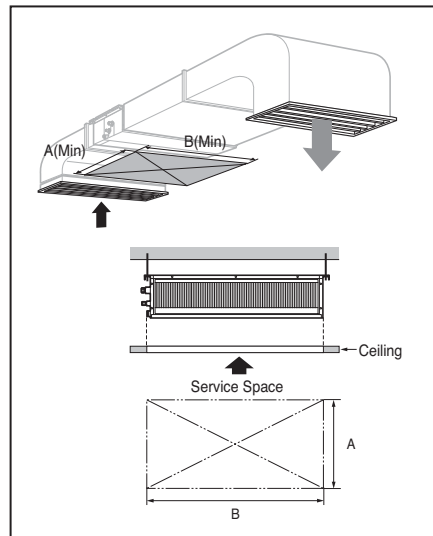
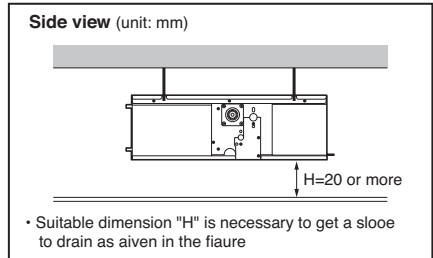
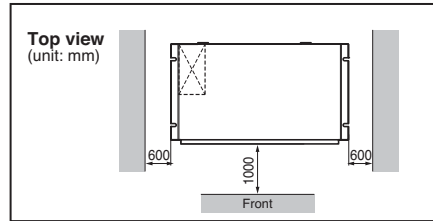
- The place shall easily bear a load exceeding four times the indoor unit's weight.
- The place shall be able to inspect the unit as the figure.
- The place where the unit shall be leveled.
- The place shall easily connect with the outdoor unit.
- The place where the unit is not affected by an electrical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

Confirm the positional relationship between the unit and suspension bolts.

- Installation the ceiling opening to clean the filter or service under the product.

(Length: mm)

Model	A	B
9/12k	600	900
18/24k	600	1100



Ceiling dimension and hanging bolt location

Installation of Unit

Install the unit above the ceiling correctly.

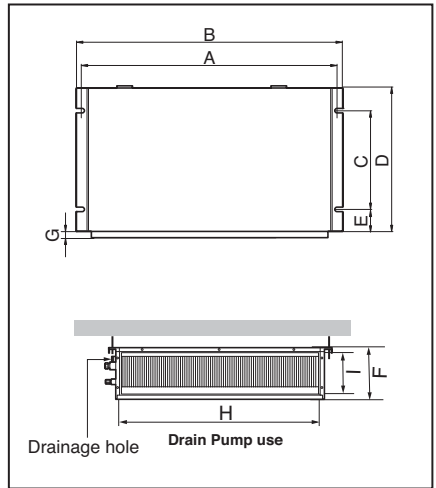
CASE 1

POSITION OF SUSPENSION BOLT

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

(Unit:mm)

Capacity \ Dimension	Dimension								
	A	B	C	D	E	F	G	H	I
9/12k Btu/h	850	900	383	570	93.5	190	20.6	795	163
18/24k Btu/h	1130	1180	383	570	93.5	190	20.6	1065	163

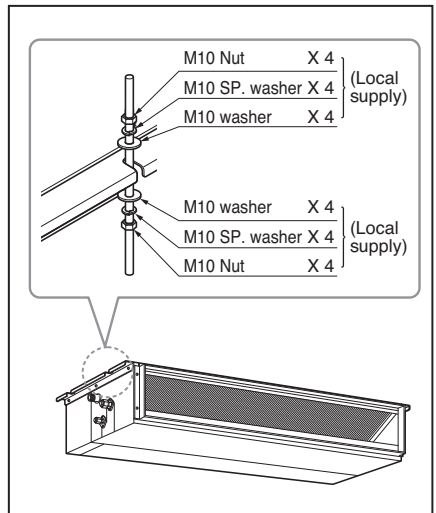


CASE 2

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

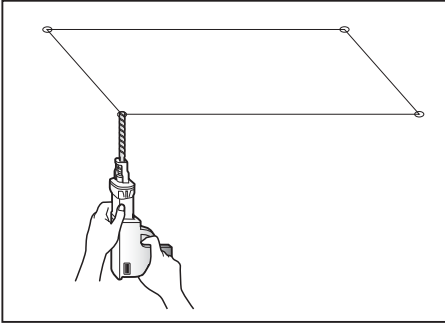
POSITION OF CONSOLE BOLT

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



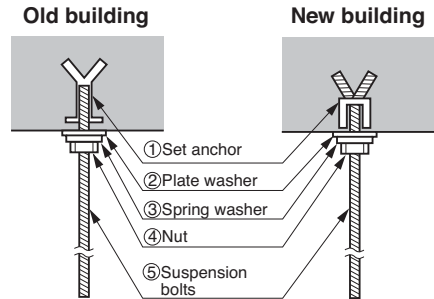
Indoor Unit Installation

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



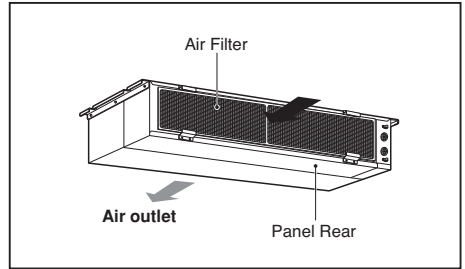
CAUTION : Tighten the nut and bolt to prevent unit falling.

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

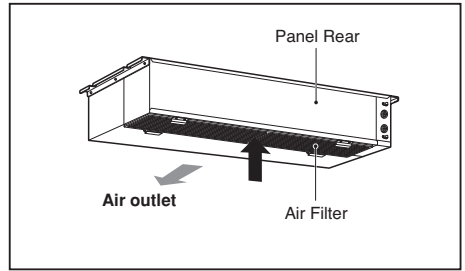


Part name and functions

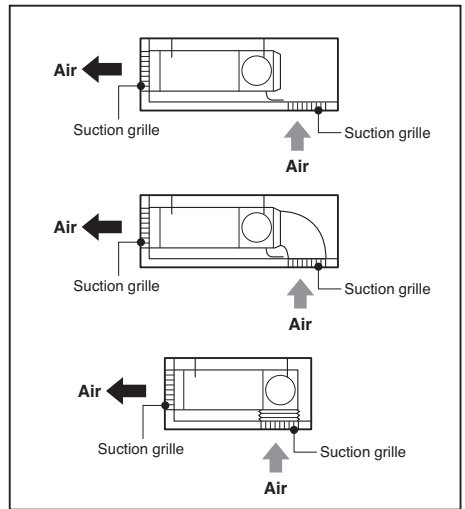
- Low static duct type in case of suction from back side.



- Low static duct type in case of suction from bottom side



- Low static duct type application-3Way

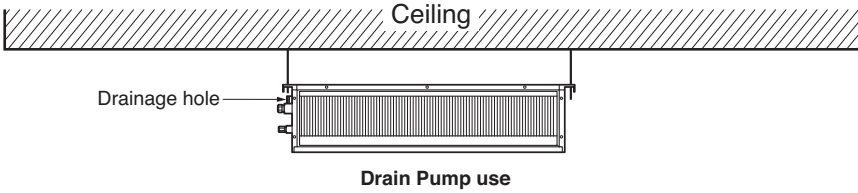


CAUTION

1. **Install declination** of the indoor unit is very **important for the drain** of the duct type air conditioner.
2. Minimum thickness of the insulation for the connecting pipe shall be 5mm.

Front of view

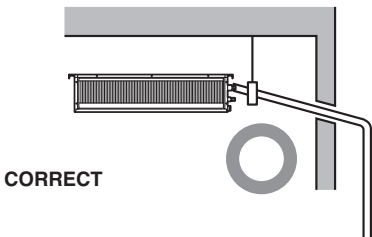
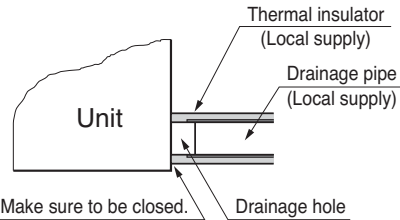
- The unit must be horizontal or declined to the drain hose connected when finished installation.



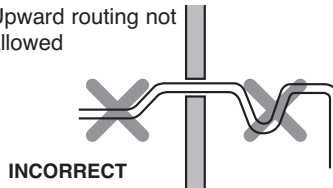
CAUTION FOR GRADIENT OF UNIT AND DRAIN PIPING

Lay the drain hose with a downward inclination so water will drain out.

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



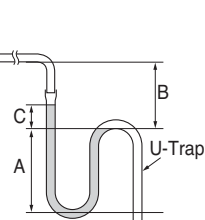
- Upward routing not allowed



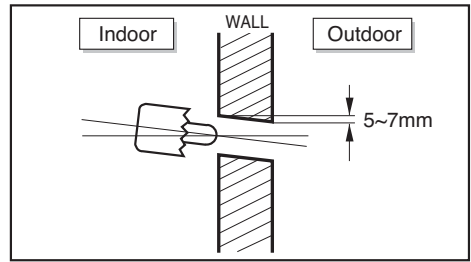
- Install the P-Trap (or U-Trap) to prevent a water leakage caused by the blocking of intake air filter.

Applied U-Trap Dimension

- A ≥ 70mm
- B ≥ 2C
- C ≥ 2 × SP
- SP = External Pressure (mmAq)
- Ex) External Pressure = 10mmAq
- A ≥ 70mm
- B ≥ 40mm
- C ≥ 20mm



- Drill the piping hole with 70mm dia, hole core drill.
- Piping hole should be slightly slant to the outdoor side.



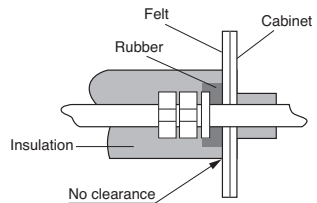
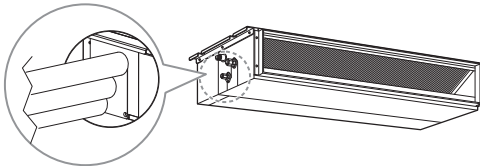
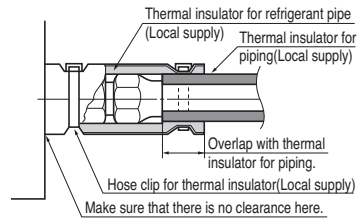
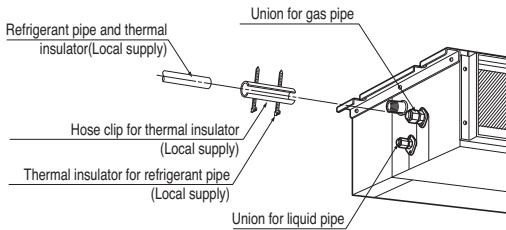
INSULATION, OTHERS

Insulate the joint and tubes completely.

THERMAL INSULATION

All thermal insulation must comply with local requirement.

INDOOR UNIT



TEST AND CHECK

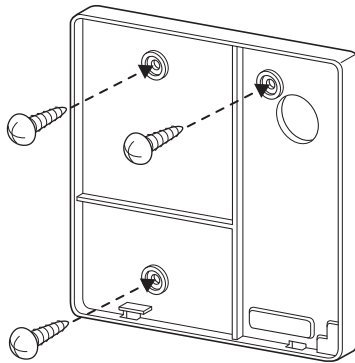
■ **After all workings are finished, check the working and operation.**

- Air distribution Is the air circulation good?
- Drain Is the drainage smoothly and no sweating?
- Gas leakage Is the piping connection correctly?
- Wiring Is the wiring connection correctly?
- Lock-bolt Is the lock-bolt of compressor loosened?
- Insulation Is the unit fully insulated?
- Ground Is the unit safely grounded?

Remote Controller Installation

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.
- Install the product so as not to make a gap with the wall side and to prevent shaking after the installation.

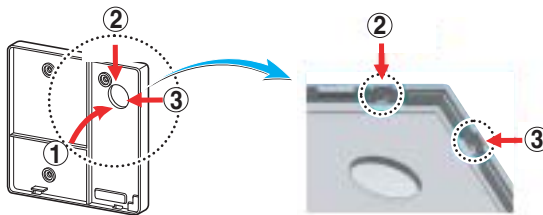


2. Can set up Wired remote controller cable into three directions.

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

* Remove guide groove with long nose.

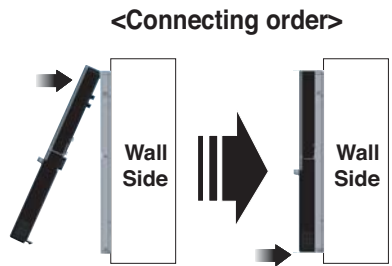
- ① Reclamation to the surface of the wall
- ② Upper part guide groove
- ③ Right part guide groove



<Wire guide grooves>

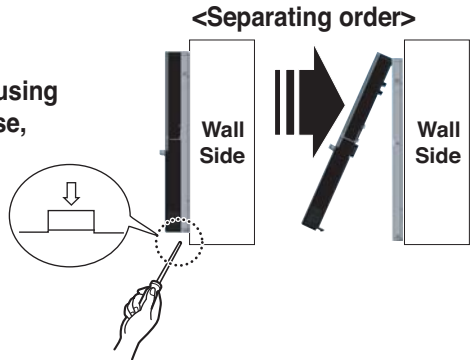
3. Please fix remote controller upper part into the setup board attached to the surface of the wall, as the picture below, and then, connect with setup board by pressing lower part.

- Please connect not to make a gap at the remote controller and setup board's upper and lower, right and left part.
- Before assembly with the installation board, arrange the Cable not to interfere with circuit parts.



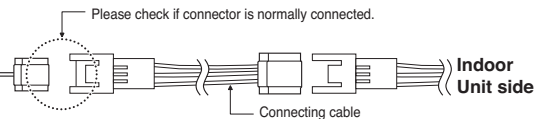
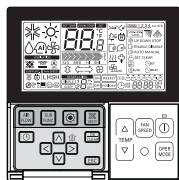
When separating remote controller from setup board, as the picture below, after inserting into the lower separating hole using screw driver and then, spinning clockwise, remote controller is separated.

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



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

12V	Red
Signal	Yellow
GND	Black



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.

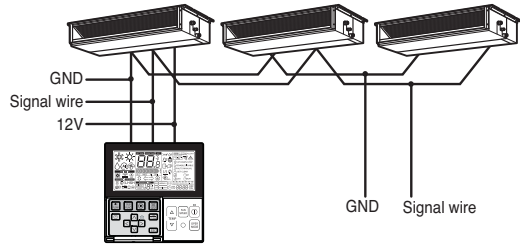
(It can cause communication error.)

- 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.

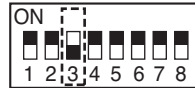


When controlling multiple indoor units with event communication function with one remote controller, you must change the master/slave setting from the indoor unit.

- 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

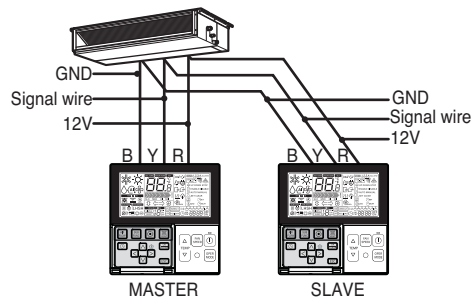
- For wall-mount type and stand type product, change the master/slave setting with the wireless remote controller. (Refer to wireless remote controller manual for detail)

* 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.

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

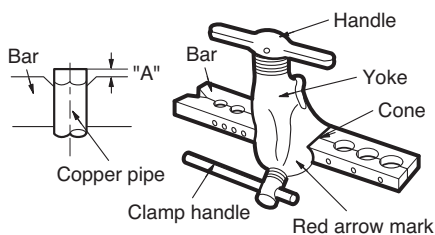
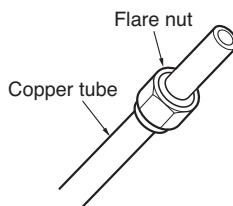
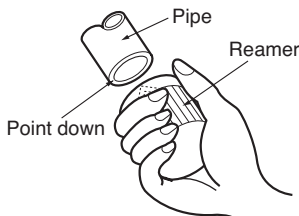
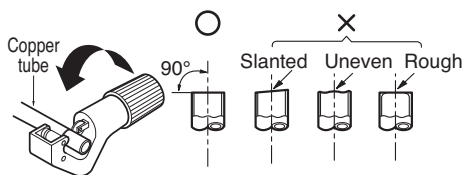
- Carry out flaring work using flaring tool as shown below.

Outside Diameter	"A"
1/4"	0~0.5
3/8"	0.5~0.8
1/2"	0.5~0.8
5/8"	0.8~1.0
3/4"	1.0~1.3

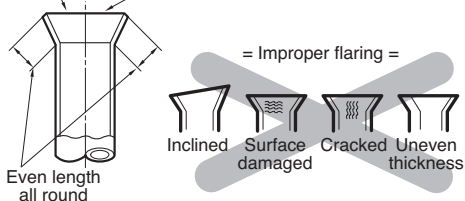
Firmly hold copper tube in a bar(or die) as indicated dimension in the table above.

5) Check

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



Smooth all round
Inside is shining without scratches.



6) Pipe bending

Annealed copper pipe with small diameter ($\phi 6.35$ or $\phi 9.52$) can be easily bent manually. In this case, secure large R(radius) for the bend section and gradually bend pipe. If annealed copper pipe is large in diameter ($\phi 15.88$ or $\phi 19.05$), bend pipe with bender. Use bender appropriate for the pipe diameter.

7) Brazing

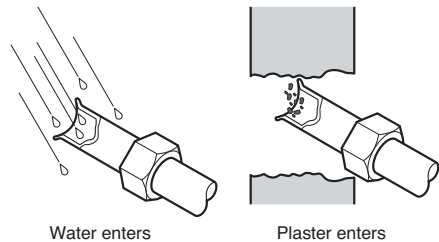
In refrigerant piping, bending (in particular, acute bending) must be minimized to reduce piping resistance. Bending is, however, necessary in some places by virtue of the installation position of devices auxiliary to the packaged air conditioner, or of the building structure, piping distance or finishing appearance. If a more acute bend is required than that attainable by pipe bender, perform brazing using ready-made elbow. Aside from this function, brazing also serves to connect straight pipes, generally using ready-made sockets. While brazing, protect piping against heat with wet cloth to avoid damaging valve packing or burning thermal insulator with burner heat. While brazing, blow inert gas (nitrogen gas or carbonic gas) to prevent formation of oxidation film in copper piping; otherwise, the refrigerant circuit will clog. The blowing of nitrogen gas (or carbonic gas) through 3-way valves is described in the following:

8) Refrigerant piping(Flare piping)

When connecting piping, be sure to keep piping dry(keep piping away from water), clean (keep piping away from dust) and airtight (avoid refrigerant leakage).

When connecting piping on rainy days or making a through-hole in wall, take due care to prevent water or plaster from entering piping.

⚠ CAUTION: This procedure is designed to prevent formation of oxidation film by filling piping with inert gas. Note that excessive gas pressure will generate pinholes at brazed points. (Nitrogen gas: Supply pressure 0.05~0.1kg/cm²G) When supplying inert gas, be sure to open one end of piping.



Connecting Pipes to the Outdoor Unit

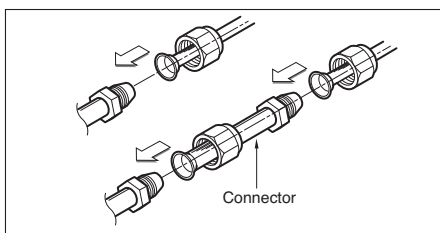
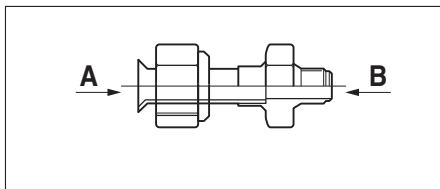
1. When piping installation work you must be used the connector.

Indoor Units	Gas	
	A	B
	Ø9.52	Ø12.7

***Connecting pipe size**

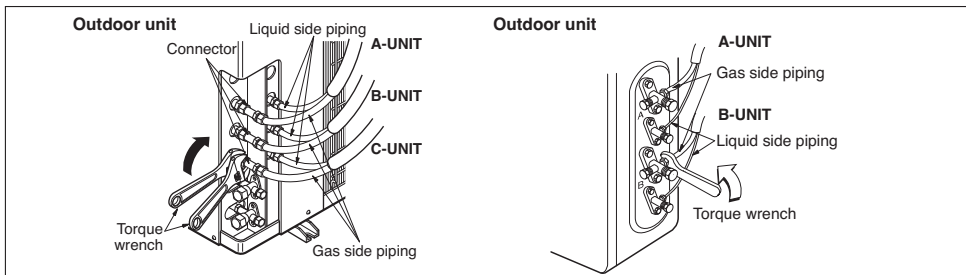
Indoor Units	Gas side	Liquid side
9K	Ø9.52(3/8")	Ø6.35(1/4")
12K	Ø9.52(3/8")	Ø6.35(1/4")
18K	Ø12.7(1/2")	Ø6.35(1/4")
24K	Ø12.7(1/2")	Ø6.35(1/4")

■ When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.



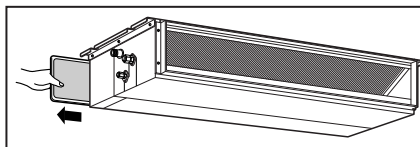
2. Align the center of the pipings and sufficiently tighten the flare nut by hand

3. Finally, tighten the flare nut with torque wrench until the wrench clicks.



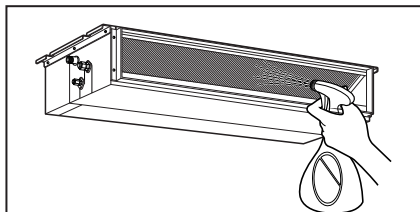
Checking the Drainage

1. Remove the Air Filter.



2. Check the drainage.

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



Connecting Cables between Indoor Unit

Connect the cable to the Indoor unit.

Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the outdoor unit connection. (Ensure that the color of the wires of the outdoor unit and the terminal No. are the same as those of the indoor unit.)

The earth wire should be longer than the common wires.

The circuit diagram is not subject to change without notice.

When installing, refer to the circuit diagram behind the panel front of Indoor Unit the wiring diagram on the Control Cover Inside Outdoor Unit.

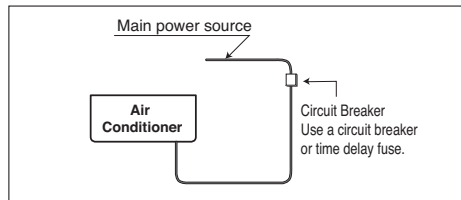


CAUTION:

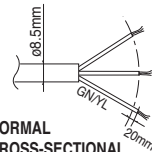
- The circuit diagram is not subject to change without notice.
- Be sure to connect wires according to the wiring diagram.
- Connect the wires firmly, so that not to be pulled out easily.
- Connect the wires according to color codes by referring the wiring diagram.



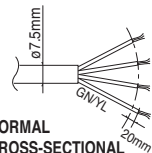
CAUTION: Provide a circuit breaker between power source and the unit as shown below.



CAUTION: The power cord connected to the outdoor unit should be complied with the following specifications (Rubber insulation, type H05RN-F approved by HAR or SAA).



NORMAL
CROSS-SECTIONAL
AREA 2.5mm²



NORMAL
CROSS-SECTIONAL
AREA 0.75mm²

The connecting cable connected to the indoor and outdoor unit should be complied with the following specifications (Rubber insulation, type H07RN-F approved by HAR or SAA).



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

Clamping of cables

- 1) Arrange 2 power cables on the control panel.
- 2) First, fasten the steel clamp with a screw to the inner boss of control panel.
- 3) For the cooling model, fix the other side of the clamp with a screw strongly. For the heat pump model, put the 0.75mm² cable(thinner cable) on the clamp and tighten it with a plastic clamp to the other boss of the control panel.
- 4) In Australia, the length of power supply cord measured from the entry of the power supply cord to the middle of live pin on the power plug should be over 1.8m.



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.

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 ① 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.

② 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 COMPLETE

- 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 fifteen minutes or more.

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

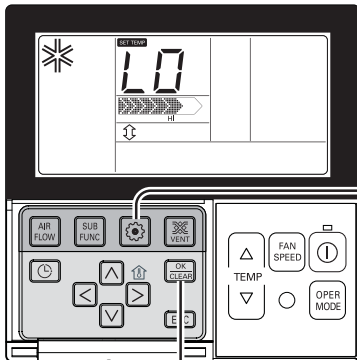
Teach the customer the operation and maintenance procedures, using the operation manual (air filter cleaning, temperature control, etc.).


Optional Operation

Installer Setting - Test Run Mode


After installing the product, you must run a Test Run mode.

For details related to this operation, refer to the product manual.

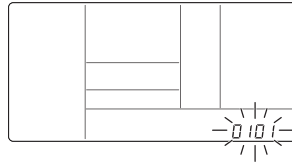


1 If pressing  button long for 3 seconds, it enters into remote controller setter setup mode.

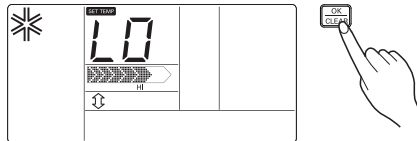
- If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.
- Please cancel the right and left of wind direction for RAC product.


 Function Code Set

2 Setup figure '01' blinks at the lower part of indication window.



3 Press  button to start.

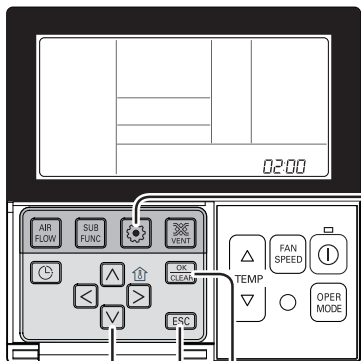


4 During the test run, pressing the below button will exit the test run.


- Select operation, temperature up/down, wind flow control, wind direction, start/stop button.

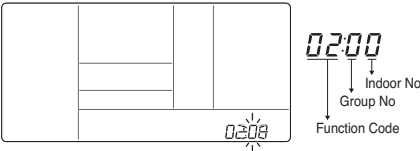
Installer Setting - Setting Address of Central Control

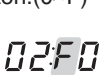


It's the function to use for connecting central control.
Please refer to central controller manual for the details









- 1** 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.

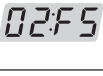


- 2** If entering into address setup mode by using button, it indicates as picture below.


- 3** Set Group No. by pressing button.(0~F)




- 4** Move to Indoor No. setting option by pressing button.

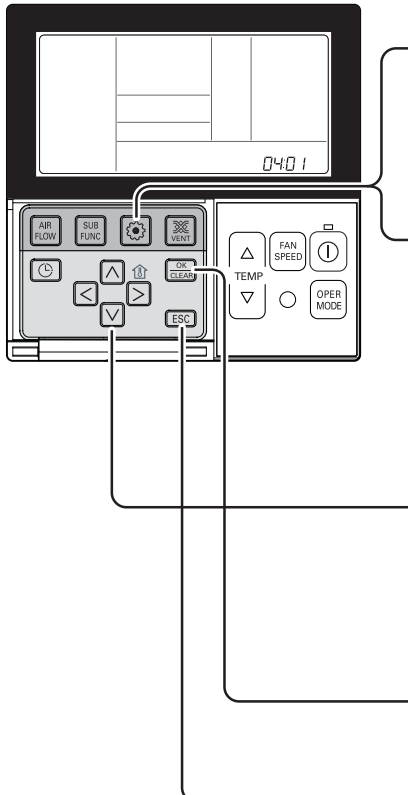



- 5** Set Indoor No. by pressing button.





- 6** Press button to save.




- 7** Pressing button will exit settings 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.

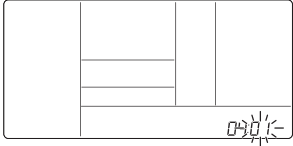


Installer Setting -Thermistor

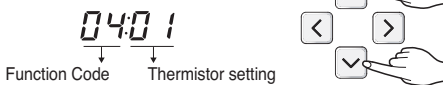

This is the function to select the temperature sensor to judge the room temperature.





- 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.
- If moving to room temperature perception sensor selection menu by pressing  button, it indicates as picture below.


- Set Thermistor value by pressing   button. (01: Remote Controller, 02: Indoor, 03: 2TH)


- Press  button to save.


- Pressing  button will exit settings 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.

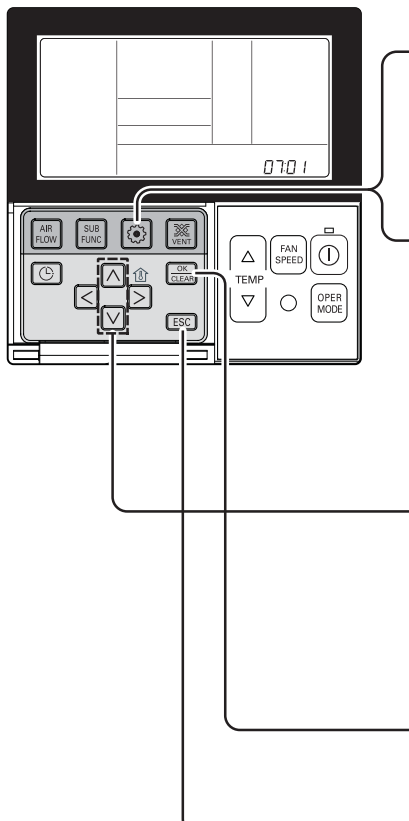
<Thermistor Table>


Temperature sensor selection		Function
01	Remote controller	Operation in remote controller temperature sensor
02	Indoor unit	Operation in indoor unit temperature sensor
03	2TH	Cooling Operation of higher temperature by comparing indoor unit's and wired remote controller's temperature. (There are products that operate at a lower temperature.)
		Heating Operation of lower temperature by comparing indoor unit's and wired remote controller's temperature.



* The function of 2TH has different operation characteristics according to the product.

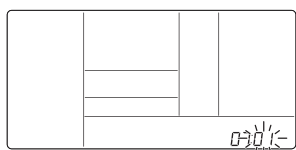


Installer Setting-Group Setting

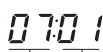
It is a function for settings in group control, or 2-remote controller control.

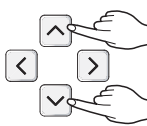




- 1** If pressing  button long for 3 seconds, it enters into remote controller setter setup mode.
- If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.




- 2** If pressing  button repeatedly, it moves to master/slave selection menu as picture below.


- 3** Select Master/ Slave by pressing   button.
(00: Slave, 01: Master)


 Function Code Master/Slave value


- 4** Press  button to save.




- 5** Pressing  button will exit settings 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.

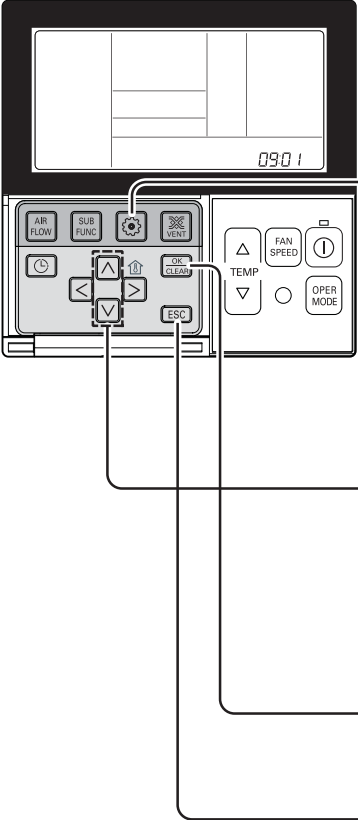
Remote controller	Function
Master	Indoor unit operates based on master remote controller at group control. (Master is set when delivering from the warehouse.)
Slave	Setup all remote controllers except one master remote controller to slave at group control


* Refer to the 'group control' part for details

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



Installer Setting-Dry Contact Mode Setting

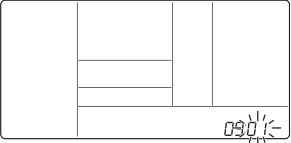


Dry contact function is the function that is possible to use only when dry contact equipment is separately purchased/setup.



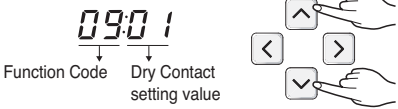

- If pressing  button long for 3 seconds, it enters into remote controller setter setup mode.



- If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.


- If pressing  button repeatedly, it moves to remote controller dry contact mode setup menu as picture below.


- Select Dry contact setting by pressing   button.

(00 : Automatic, 01 : manual)


- Press  button to save.


- Pressing  button will exit settings 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.

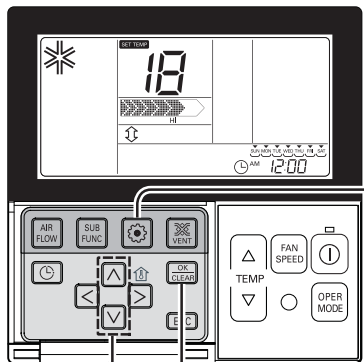
► What is Dry Contact?

Like hotel card key and body perception sensor, it is the signal of the point of contact when using air-conditioner by interlocking.


• Please refer to dry contact manual for more details.

Installer Setting-Celsius / Fahrenheit Switching

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



- 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.

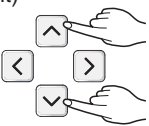

- 2** Repeat pressing button to select Function code 12.

12:00

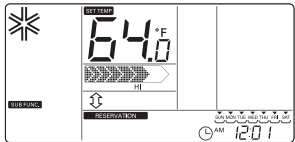
Function Code conversion mode value


Ex) Fahrengait Setting
- 3** Select Temperature unit mode by pressing button.
(00: Celsius, 01: Fahrenheit)


12:01


- 4** Press button to save or release.

12:01



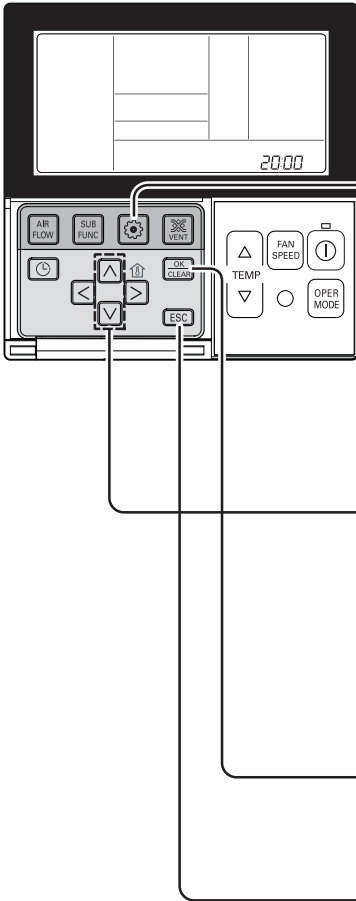

- 5** Press button to exit or system will automatically exit after 25 seconds without any input.



* Whenever press button in Fahrenheit mode, the temperature will increase/drop 2 degrees.

Installer Setting -Optional Function Setting

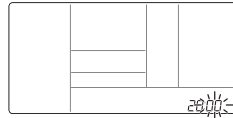
Setting feature for indoor unit when air cleaning / heater / humidifier / Up/down grill / Ventilation KIT /Auxiliary Heater is newly installed, or installed unit is removed.



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.

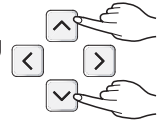


2 If pressing button repeatedly, it moves to the selected option function code as picture below.



Function	Code
Plasma purification	20
Electric heater	21
Dehumidifier	22
Elevation grill	23
Ventilation kit	24
Auxiliary heater	25

3 Select existing condition of each mode by pressing button.
(00: not installed,
01 : installed)



2001

Function Code Existing condition

4 Press button to save.

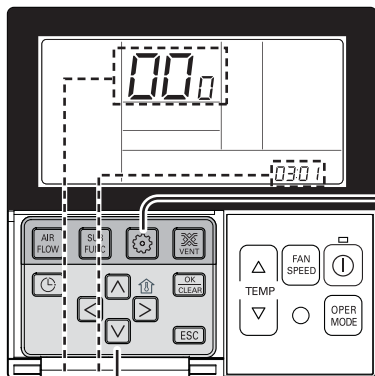


5 Pressing button will exit settings mode.
* After setup, it automatically gets out of setup mode if there is no button input for 25 seconds.
* When exiting without pressing set button, the manipulated value is not reflected.

Installer Setting -E.S.P.

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

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



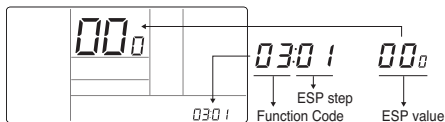
Function code,
ESP code

ESP value

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 If entering into ESP setup mode by using button, it indicates as the picture below.



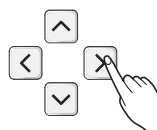
3 Select ESP fan step by pressing button. (01: very low, 02: low, 03: medium, 04: high, 05: very high)

0301

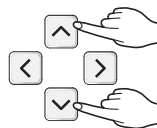


4 Move to ESP value setting by pressing button.
(It is 000 when delivering from the warehouse.)

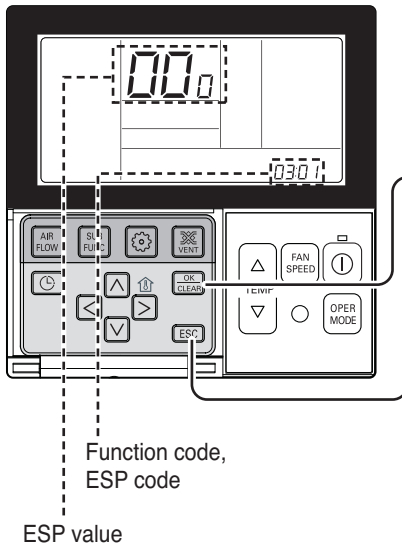
0301 000



5 Press button to setup ESP value.
(It is possible to setup ESP value from 1 to 255, and 1 is the smallest and 255 is the biggest.)



- When setting ESP value on the product without very weak wind or power wind function, it may not work.



6 Select ESP fan step again by using $\left[\leftarrow \right]$ $\left[\rightarrow \right]$ button and setup ESP value, as No. 4 and 5, that corresponds each wind flow

7 Press $\left[\text{OK/CLEAR} \right]$ button to save.



8 Press $\left[\text{ESC} \right]$ 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.

- Please be careful not to change the ESP value for each fan step.
- It does not work to setup ESP value for very low/power step for some products.
- ESP value is available for specific range belongs to the product.

[Table. 1]

Static Pressure(mmAq)		0	1	2	3	4
Model Name	Step(Hi/Med/Lo)	Setting Value				
9k	8.5 CMM	75	84	94	104	114
	7.5 CMM	69	77	88	99	110
	6.5 CMM	62	71	83	95	106
12k	9.5 CMM	82	90	99	109	118
	8.5 CMM	75	84	94	104	114
	7.5 CMM	69	77	88	99	110
18k	16 CMM	90	97	105	114	122
	14 CMM	82	90	99	109	118
	12 CMM	75	84	93	103	113
24k	19 CMM	110	117	125	129	-
	17 CMM	100	107	115	121	127
	15 CMM	90	97	105	114	122

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

