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Safety precautions

(Carefully follow the precautions listed below because they are essential to guarantee the safety of the equipment.)



- Always disconnect the air conditioner from the power supply before servicing it or accessing its internal components.
- Verify that installation and testing operations are performed by qualified personnel.
- Verify that the air conditioner is not installed in an easily accessible area.

GENERAL INFORMATION

- ◆ Carefully read the content of this manual before installing the air conditioner and store the manual in a safe place in order to be able to use it as reference after installation.
- ◆ For maximum safety, installers should always carefully read the following warnings.
- ◆ Store the operation and installation manual in a safe location and remember to hand it over to the new owner if the air conditioner is sold or transferred.
- ◆ This manual explains how to install an indoor unit with a split system with two SAMSUNG units. The use of other types of units with different control systems may damage the units and invalidate the warranty. The manufacturer shall not be responsible for damages arising from the use of non compliant units.
- ◆ This product has been determined to be in compliance with the Low Voltage Directive (2006/95/EC), and the Electromagnetic Compatibility Directive (2004/108/EC) of the European Union.
- ◆ The manufacturer shall not be responsible for damage originating from unauthorized changes or the improper connection of electric and hydraulic lines. Failure to comply with these instructions or to comply with the requirements set forth in the "Operating limits" table, included in the manual, shall immediately invalidate the warranty.
- ◆ The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.
- Do not use the units if damaged. If problems occur, switch the unit off and disconnect it from the power supply.
- ◆ In order to prevent electric shocks, fires or injuries, always stop the unit, disable the protection switch and contact SAMSUNG's technical support if the unit produces smoke, if the power cable is hot or damaged or if the unit is very noisy.
- Always remember to inspect the unit, electric connections, refrigerant tubes and protections regularly.
 These operations should be performed by qualified personnel only.
- ◆ The unit contains moving parts, which should always be kept out of the reach of children.
- Do not attempt to repair, move, alter or reinstall the unit. If performed by unauthorized personnel, these operations may cause electric shocks or fires.
- ◆ Do not place containers with liquids or other objects on the unit.
- ◆ All the materials used for the manufacture and packaging of the air conditioner are recyclable.
- ◆ The packing material and exhaust batteries of the remote control (optional) must be disposed of in accordance with current laws.
- ◆ The air conditioner contains a refrigerant that has to be disposed of as special waste. At the end of its life cycle, the air conditioner must be disposed of in authorized centers or returned to the retailer so that it can be disposed of correctly and safely.

INSTALLING THE UNIT

IMPORTANT: When installing the unit, always remember to connect first the refrigerant tubes, then the electrical lines. Always disassemble the electric lines before the refrigerant tubes.

- Upon receipt, inspect the product to verify that it has not been damaged during transport. If the product appears damaged, DO NOT INSTALL it and immediately report the damage to the carrier or retailer (if the installer or the authorized technician has collected the material from the retailer.)
- ◆ After completing the installation, always carry out a functional test and provide the instructions on how to operate the air conditioner to the user.
- ◆ Do not use the air conditioner in environments with hazardous substances or close to equipment that release free flames to avoid the occurrence of fires, explosions or injuries.
- ◆ The air conditioner should be used only for the applications for which it has been designed: the indoor unit is not suitable to be installed in areas used for laundry.

Safety precautions(Cont.)

Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units' components must be accessible and that can be disassembled in conditions of complete safety either for people or things. For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

POWER SUPPLY LINE, FUSE OR CIRCUIT BREAKER

- Always make sure that the power supply is compliant with current safety standards. Always install the air conditioner in compliance with current local safety standards.
- ◆ Always verify that a suitable grounding connection is available.
- ◆ Verify that the voltage and frequency of the power supply comply with the specifications and that the installed power is sufficient to ensure the operation of any other domestic appliance connected to the same electric lines.
- ◆ Always verify that the cut-off and protection switches are suitably dimensioned.
- ◆ Verify that the air conditioner is connected to the power supply in accordance with the instructions provided in the wiring diagram included in the manual.
- Always verify that electric connections (cable entry, section of leads, protections...) are compliant with the electric specifications and with the instructions provided in the wiring scheme. Always verify that all connections comply with the standards applicable to the installation of air conditioners.



- ◆ Make sure that you earth the cables.
 - Do not connect the earth wire to the gas pipe, water pipe, lighting rod or telephone wire. If earthing is not complete. electric shock or fire may occur.
- Install the circuit breaker.
 - If the circuit breaker is not installed, electric shock or fire may occur.
- Make sure that the condensed water dripping from the drain hose runs out properly and safely.
- ◆ Install the power cable and communication cable of the indoor and outdoor unit at least 1m away from the electric appliance.
- Install the indoor unit away from lighting apparatus using the ballast.
 - If you use the wireless remote control, reception error may occur due to the ballast of the lighting apparatus.
- ◆ Do not install the air conditioner in following places.
 - Place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak. The capacity of the heat exchanger may reduce or the air conditioner may be out of order.
 - The place where corrosive gas such as sulfurous acid gas generates from the vent pipe or air outlet. The copper pipe or connection pipe may corrode and refrigerant may leak.
 - -The place where there is a machine that generates electromagnetic waves. The air conditioner may not operate normally due to control system.
 - -The place where there is a danger of existing combustible gas, carbon fiber or flammable dust. The place where thinner or gasoline is handled. Gas may leak and it may cause fire.

Accessories

The following accessories are supplied with the indoor unit. The type and quantity may differ depending on the specifications.



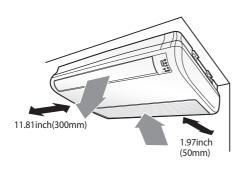
Selecting the installation location

Indoor Unit

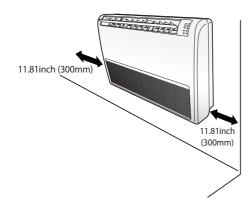
- Select a convenient location that permits the air to reach every corner of the area to be cooled.
- Pre-plan for easy and short routing of the refrigerant tubing and wiring to the outdoor unit.
- There should be no flammable gas, alkaline, substances present in the air.
- Avoid location where obstacles preventing good air circulation are present.
- ◆ Noise prevention should be considered in determining the unit's location.
- The structure, where the unit is to be installed should be strong enough to support the weight of the
 unit.
- Rigid wall without vibration.
- ◆ Where it is not exposed to direct sunshine.
- ◆ Where the air filter can be removed and cleaned easily.

Space requirements for Indoor unit

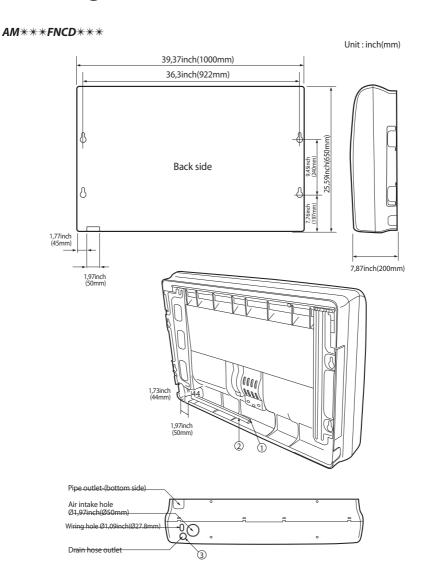
Ceiling installation



Floor installation



Selecting the installation location



No.	Name	Description
1	Liquid pipe connection	**018** ø6.35 (1/4")
'	Liquid pipe confilection	**024** ø9.52 (3/8")
2	Cas pina connection	**018** ø12.70 (1/2")
2	Gas pipe connection	**024** ø15.88(5/8")
3	Drain pipe connection	ID ø18(0,709") Hose

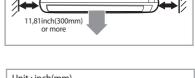
Ceiling installation

It is recommended to install the Y-joint before installing the indoor unit.

Select pipe directions.

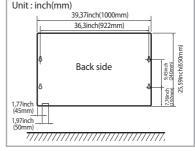
When the directions are selected, drill 3-1/8"-(100mm, for pipe and cables) and 1-3/4"-(40mm, for drain hose) diameter holes on the wall so that it slants slightly downwards toward the outdoor for smooth water flow.

More Use the pattern sheet to select pipe directions.



Drill holes for anchor bolts according to the distance and mount them.

Note Use the pattern sheet.

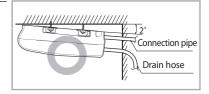


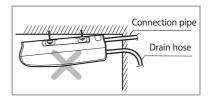
Ilnstall the unit onto the ceiling. Be sure to arrange the drain hose so that it is leveled lower than the drain hose connecting port of the indoor unit.

Note: For proper drainage of condensate, give a 2° slant to the side of the unit which will be connected with the drain hose as shown in the figure.

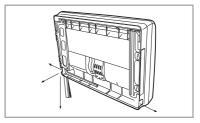


for Ensure that the ceiling is strong enough to CAUTION support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.





If installing on dropped ceiling, install threaded rod onto anchor bolt-(expansion bolt) to long enough to suspend the unit right below the dropped ceiling and the install the unit suspending on the threaded rod.



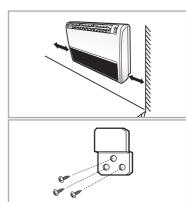
Floor installation

Select pipe directions.

When the directions are selected, drill 3-1/8" (100mm, for pipe and cables) and 1-3/4" (40mm, for drain hose) diameter holes on the wall so that it slants slightly downwards toward the outdoor for smooth water flow.

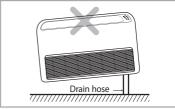
Mote Use the pattern sheet to select pipe directions.

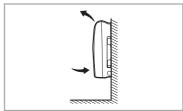
2 Install the hanging plate according to the distance and mount it.

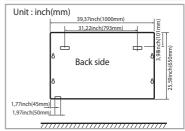


3 Install the unit and be sure to arrange the drain hose so that it is leveled lower than the drain hose connecting port of the indoor unit.









Purging the Unit

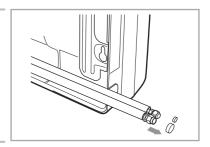
On delivery, the indoor unit is loaded with an inert Nitrogen gas.

All this gas must therefore be purged before connecting the assembly piping. To purge the inert gas, proceed as follows.

1 Unscrew the caps at the end of each pipe.

Result: All inert gas escapes from the indoor unit.

More To prevent dirt or foreign objects from getting into the pipes during installation, do NOT remove the caps completely until you are ready to connect the piping.



Connecting the refrigerant pipe

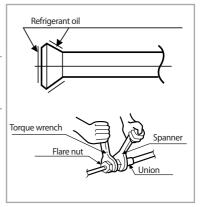
There are two refrigerant pipes of differing diameters:

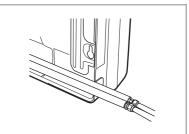
- ◆ A smaller one for the liquid refrigerant
- ◆ A larger one for the gas refrigerant
- ◆ The inside of copper pipe must be clean & has no dust.
- Before connecting the refrigerant pipe, open the cover side.
- Remove the pinch pipe on the pipes and connect the assembly pipes to each pipe, tightening the nuts, first manually and then with a torque wrench, a spanner applying the following torque.

Outer Di	ameter	Torque				
mm	inch	N•m	lbf•ft			
6.35	1/4	14~18	10.3~13.3			
9.52	3/8	34~42	25.1~31.0			
12.7	1/2	49~61	36.1~45.0			
15.88	5/8	68~82	50.2~60.5			

Must apply refrigerant oil on the flaring area to prevent a leak.

Be sure that there must be no crack or kink on the bended area.





Cutting/Flaring the pipes

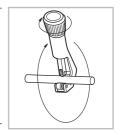
- Make sure that you prepared the required tools. (pipe cutter, reamer, flaring tool and pipe holder)
- If you want to shorten the pipe, cut it using a pipe cutter ensuring that the cut edge remains at 90° with the side of the pipe. There are some examples of correctly and incorrectly cut edges below.











To prevent a gas leak, remove all burrs at the cut edge of the pipe using a reamer.

Carry out flaring work using flaring tool as shown below.









<u> </u>)	
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		-

		Depth of flaring part (A)					
Outer dian	meter (D)	Using flaring tool for R-410A		Usi	ng conventio	nal flaring t	ool
				Clutcl	n type	Wing nut type	
mm	inch	mm	inch	mm	inch	mm	inch
6.35	1/4	0~0.5	0~0.02	1.0~1.5	0.04~0.06	1.5~2.0	0.06~0.08
9.52	3/8	0~0.5	0~0.02	1.0~1.5	0.04~0.06	1.5~2.0	0.06~0.08
12.70	1/2	0~0.5	0~0.02	1.0~1.5	0.04~0.06	1.5~2.0	0.06~0.08
15.88	5/8	0~0.5	0~0.02	1.0~1.5	0.04~0.06	1.5~2.0	0.06~0.08

Check if you flared the pipe correctly. There are some examples of incorrectly flared pipes below.











Damaged Surface Cracked Uneven Thickness

Align the pipes and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.

Outer di	r diameter Connection Torque Flare dimensio				mension
mm	inch	inch N·m lbf·ft mm		mm	inch
6.35	1/4	14~18	10.3~13.3	8.7~9.1	0.34~0.36
9.52	3/8	34~42	25.1~31.0	12.8~13.2	0.50~0.52
12.70	1/2	49~61	36.1~45.0	16.2~16.6	0.64~0.65
15.88	5/8	68~82	50.2~60.5	19.3~19.7	0.76~0.78
19.05	3/4	100~120	73.8~88.5	23.6~24.0	0.93~0.94





Aution In case of needing brazing, you must work with Nitrogen gas blowing.

Performing leak test & insulation

Leak test

LEAK TEST WITH NITROGEN (before opening valves)

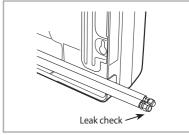
In order to detect basic refrigerant leaks, before recreating the vacuum and recirculating the R410A, it's responsible of installer to pressurize the whole system with nitrogen (using a pressure regulator) at a pressure above 4.1MPa (qauqe).

LEAK TEST WITH R410A (after opening valves)

Before opening valves, discharge all the nitrogen into the system and create vacuum. After opening valves check leaks using a leak detector for refrigerant R410A.



Discharge all the nitrogen to create a vacuum and charge the system.



*The designs and shape are subject to change according to the model.

Insulation

Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

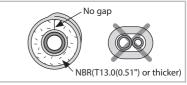
1 To avoid condensation problems, place T13.0(0.51") or thicker Acrylonitrile Butadien Rubber separately around each refrigerant pipe.

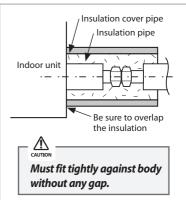
Mপ্রায় Always make the seam of pipes face upwards.

- Wind insulating tape around the pipes and drain hose avoiding to compress the insulation too much.
- 3 Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.
- 4 The pipes and electrical cables connecting the indoor unit with the outdoor unit must be fixed to the wall with suitable ducts



All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.





Performing leak test & insulation

- 5 Select the insulator of the refrigerant pipe.
 - Insulate the gas side and liquid side pipe referring to the thickness according to the pipe size.
 - Indoor temperature of 27°C (80.6°F) and humidity of 80% is the standard condition.
 If install in a high humidity condition, use one grade thicker insulator by referring to the table below.
 If installing in an unfavorable conditions, use thicker one.
 - Insulator's heat-resistance temperature should be more than 120°C(248°F).

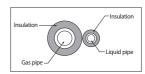
Pipe size		ness of insulator (inch)	Remarks
mm(inch)	PE foam	EPDM foam	
Ø6.35~Ø15.88 (1/4"~3/8")	13(1/2")	10(3/8")	If you install the pipe underground, at the seaside, a spa or on the lake,
-	25(1")	19(3/4")	use 1 grade thicker one according to the pipe size.

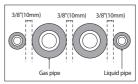
Refrigerant pipe before EEV kit and MCU or without EEV kit and MCU

- You can contact the gas side and liquid side pipes but the pipes should not be pressed.
- When contacting the gas side and gas side pipe, use 1 grade thicker insulator.

Refrigerant pipe after EEV kit and MCU

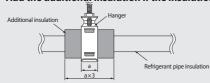
- ◆ Install the gas side and liquid side pipes, leave 10mm of space.
- When contacting the gas side and liquid side pipe, use 1 grade thicker insulator.







- Install the insulation not to get wider and use the adhesives on the connection part of it to prevent moisture from entering.
- ♦ Wind the refrigerant pipe with insulation tape if it is exposed to outside sunlight.
- Install the refrigerant pipe respecting that the insulation does not get thinner on the bent part or hanger of pipe.
- ♦ Add the additional insulation if the insulation plate gets thinner.

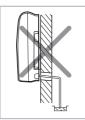


Drain hose installation

Care must be taken when installing the drain hose for the indoor unit to ensure that any condensation water is correctly drained outside. When passing the drain hose through the hole drilled in the wall, check that none of the following situations occur.



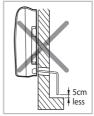
The hose must NOT slope upwards.



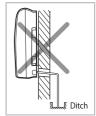
The end of the drain hose must NOT be placed in water.



Do NOT bend the hose in different directions.



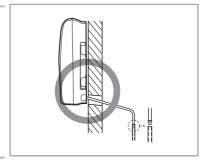
Keep a clearance of at least 5-cm between the end of the hose and the ground.



Do NOT place the end of the drain hose in a hollow.

If draining pipe is not too long.

It may be extended the draining pipe by connecting as following figure.



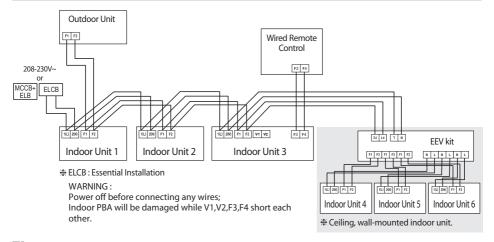
Wiring work

Power and communication cable connection

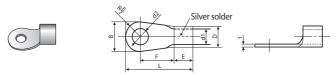
- 1 Before wiring work, you must turn off all power source.
- 2 Indoor unit power should be supplied through the breaker(ELCB or MCCB+ELB) separated by the outdoor power.

ELCB:Earth Leakage Circuit Breaker MCCB:Molded Case Circuit Breaker ELB:Earth Leakage Breaker

- 3 The power cable should be used only copper wires.
- 4 Connect the power cable{1(L), 2(N)} among the units within maximum length and communication cable(F1, F2) each.
- 5 Connect F3, F4(for communication) when installing the wired remote control.



Selecting compressed ring terminal



			В		D	d	1	E	F	L	d	2	t
Normin dimension cable (inc	s for dimensions f	dimension	Allowance (inch)	Standard dimension (inch)		Standard dimension (inch)		Min.	Min.	Max.	Standard dimension (inch)	Allowance (inch)	Min.
0.0023	0.16	0.26	±0.0079	0.13	+0.012	0.067	±0.0079	0.16	0.24	0.63	0.17	+0.0079	0.028
0.0023	0.16	0.31	±0.0075	0.13	-0.0079	0.007	±0.0075	0.10	0.2 1	0.03	0.17	0	0.020
0.0039	0.16	0.26	±0.0079	0.17	+0.012	0.091	±0.0079	0.24	0.24	0.69	0.17	+0.0079	0.031
0.0039	0.16	0.33	±0.00/9	0.17	-0.0079	0.091	±0.0079	0.24	0.24	0.09	0.17	0	0.031
0.0062	0.16	0.37	±0.0079	0.22	+0.012	0.134	±0.0079	0.24	0.20	0.79	0.17	+0.0079	0.035

Specification of electronic wire

Power supply	МССВ	ELB or ELCB	Power cable	Earth cable	Communication cable
Max : 253V Min : 187V	ХА	X A, 30mA 0.1 sec	(0 = 2)	0.0039inch ² (2.5mm ²)	0.0012~0.0023inch ² (0.75~1.5mm ²)

◆ Decide the capacity of ELCB(or MCCB+ELB) by below formula.

The capacity of ELCB(or MCCB+ELB) $X[A] = 1.25 \times 1.1 \times \Delta A$

★ Rating current

- *X: The capacity of ELCB(or MCCB+ELB).
- * Σ Ai : Sum of Rating currents of each indoor unit.
- * Refer to each installation manual about the rating current of indoor unit.
- Decide the power cable specification and maximum length within 10% power drop among indoor units.

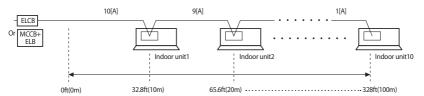
Unit	Model	Rating current
AM*FNCD*	*018* *024*	0,42A 0,48A

$$\sum_{k=1}^{n} \left(\frac{\text{Coef} \times 35.6 \times \text{Lk} \times \text{ik}}{1000 \times \text{Ak}} \right) < 10\% \text{ of input voltage[V]}$$

- * coef: 1.55
- * Lk: Distance among each indoor unit[m(ft)], Ak: Power cable specification[mm²] ik: Running current of each unit[A]

Example of Installation

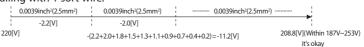
- Total power cable length L = 328ft(100m), Running current of each units 1[A]
- Total 10 indoor units were installed



Apply following equation.

$$\sum_{k=1}^{n} \left(\frac{\text{Coef} \times 35.6 \times \text{Lk} \times \text{ik}}{1000 \times \text{Ak}} \right) < \frac{10\% \text{ of input}}{\text{voltage[V]}}$$

- ★ Calculation
 - Installing with 1 sort wire.



• Installing with 2 different sort wire.



Wiring work(Cont.)



- Select the power cable in accordance with relevant local and national regulations.
- ♦ Wire size must comply with local and national code.
- ◆ For the power cable, use the grade of H07RN-F or H05RN-F materials.
- ◆ You should connect the power cable into the power cable terminal and fasten it with a clamp.
- The unbalanced power must be maintained within 10% of supply rating among whole indoor units.
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 10% of supply rating, the indoor unit is protected, stopped and the error mode indicates.
- ◆ To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units in the iron pipe.
- ◆ Connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring[≥1/8"(3mm)].
- ♦ You must keep the cable in a protection tube.
- ♦ Keep distances of 2"(50mm) or more between power cable and communication cable.
- Maximum length of power cables are decided within 10% of power drop. If it exceeds, you
 must consider another power supplying method.
- The circuit breaker(ELCB or MCCB+ELB) should be considered more capacity if many indoor units are connected from one breaker.
- ◆ Use round pressure terminal for connections to the power terminal block.
- For wiring, use the designated power cable and connect it firmly, then secure to prevent outside pressure being exerted on the terminal board.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.
- ♦ See the table below for tightening torque for the terminal screws.

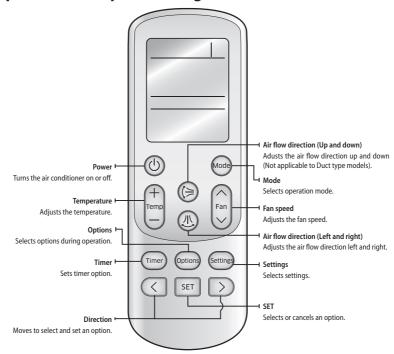
Tightening torque						
M3.5	0.8~1.0 N·m	0.59~0.74 lbf·ft				
M4	1.2~1.5 N·m	0.89~1.1 lbf·ft				

Setting an indoor unit address and installation option

Set the indoor unit address and installation option with remote controller option.

Set the each option separately since you cannot set the ADDRESS setting and indoor unit installation setting option at the same time. You need to set twice when setting indoor unit address and installation option.

The procedure of option setting



Step 1. Entering mode to set option

- 1. Remove batteries from the remote controller.
- 2. Insert batteries and enter the option setting mode while pressing High Temp button and Low Temp button.





Check if you have entered the option setting status.

Step 2. The procedure of option setting

After entering the option setting status, select the option as listed below.



Option setting is available from SEG1 to SEG 24

- ◆ SEG1, SEG7, SEG13, SEG19 are not set as page option.
- Set the SEG2~SEG6, SEG8~SEG12 as ON status and SEG14~18, SEG20~24 as OFF status.

	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
	0	Х	Χ	Χ	Х	Χ	1	Χ	Χ	Х	Χ	Χ
Ì	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
Ì	2	Х	Χ	Χ	Х	Χ	3	Χ	Χ	Х	Χ	Χ



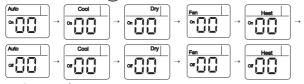
Setting an indoor unit address and installation option (Cont.)

Option setting	Status
1. Setting SEG2, SEG3 option Press Low Fan button(∨) to enter SEG2 value. Press High Fan button(∧) to enter SEG3 value. Each time you press the button, □→□→…□→□ will be selected in rotation.	Auto on O
2. Setting Cool mode Odd Press Mode button to be changed to Cool mode in the ON status.	Cool Cool
3. Setting SEG4, SEG5 option Press Low Fan button(\lor) to enter SEG4 value. Press High Fan button(\land) to enter SEG5 value. Each time you press the button, $\bigcirc \rightarrow \bigcirc \rightarrow \Box \rightarrow \cdots \bigcirc \rightarrow \Box$ will be selected in rotation.	Cool On Cool On SEG4 SEG5
4. Setting Dry mode Odd Press Mode button to be changed to DRY mode in the ON status.	On Dry
5. Setting SEG6, SEG8 option Press Low Fan button(∨) to enter SEG6 value. Press High Fan button(∧) to enter SEG8 value. Each time you press the button, □→□→…□→□ will be selected in rotation.	on o
6. Setting Fan mode Mode Press Mode button to be changed to FAN mode in the ON status.	Fan On C C
7. Setting SEG9, SEG10 option Press Low Fan button(\lor) to enter SEG9 value. Press High Fan button(\land) to enter SEG10 value. Each time you press the button, $\bigcirc \rightarrow \bigcirc \rightarrow \cdots \bigcirc \rightarrow \bigcirc$ will be selected in rotation.	Fan On
8. Setting Heat mode Press Mode button to be changed to HEAT mode in the ON status.	On D
9. Setting SEG11, SEG12 option Press Low Fan button(∨) to enter SEG11 value. Press High Fan button(∧) to enter SEG12 value. Each time you press the button, □→□→□→□ will be selected in rotation.	Heat On SEG12
10. Setting Auto mode Press Mode button to be changed to AUTO mode in the OFF status.	Auto Cor Cor Cor Cor Cor Cor Cor Cor Cor Co
11. Setting SEG14, SEG15 option Press Low Fan button(∨) to enter SEG14 value. Press High Fan button(∧) to enter SEG15 value. Each time you press the button, □ → □ → ··· □ → □ will be selected in rotation.	SEG14 SEG15

Option setting	Status
12. Setting Cool mode Mode Press Mode button to be change to Cool mode in the OFF status.	Cool or Cool
13. Setting SEG16, SEG17 option Press Low Fan button(\lor) to enter SEG16 value. Press High Fan button(\land) to enter SEG17 value. Each time you press the button, $\Box \to \Box \to \cdots \Box \to \Box$ will be selected in rotation.	Cool or Cool or SEG16
14. Setting Dry mode Mode Press Mode button to be change to Dry mode in the OFF status.	or Dry
15. Setting SEG18, SEG20 option Press Low Fan button(\lor) to enter SEG18 value. Press High Fan button(\land) to enter SEG20 value. Each time you press the button, $\Box \to \Box \to \cdots \Box \to \Box$ will be selected in rotation.	Dry Or Dry Or SEG18 SEG20
16. Setting Fan mode Mode Press Mode button to be change to Fan mode in the OFF status.	Fan Cor
17. Setting SEG21, SEG22 option Press Low Fan button(∨) to enter SEG21 value. Press High Fan button(∧) to enter SEG22 value. Each time you press the button, □→□→…□→□ will be selected in rotation.	Fen or Grand SEG21
18. Setting Heat mode Mode Press Mode button to be change to HEAT mode in the OFF status.	or C
19. Setting SEG23, SEG24 mode Press Low Fan button(\lor) to enter SEG23 value. Press High Fan button(\land) to enter SEG24 value. Each time you press the button, $\bigcirc \rightarrow \bigcirc \rightarrow \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ will be selected in rotation.	Heat or Heat or SEG23 SEG24

Step 3. Check the option you have set

After setting option, press Mode button to check whether the option code you input is correct or not.



Step 4. Input option

Press operation button (b) with the direction of remote control for set. For the correct option setting, you must input the option twice.

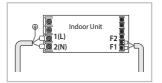
Step 5. Check operation

- 1. Reset the indoor unit by pressing the RESET button of indoor unit or outdoor unit.
- 2. Take the batteries out of the remote controller and insert them again and then press the operation button.

Setting an indoor unit address and installation option (Cont.)

Setting an indoor unit address (MAIN/RMC)

- 1. Check whether power is supplied or not.
 - When the indoor unit is not plugged in, there should be additional power supply in the indoor unit.



- 2. The panel(display) should be connected to an indoor unit to receive option.
- **3.** Before installing the indoor unit, assign an address to the indoor unit according to the air conditioning system plan.
- 4. Assign an indoor unit address by wireless remote controller.
 - The initial setting status of indoor unit ADDRESS(MAIN/RMC) is "0A0000-100000-200000-300000".

Option No.: 0AXXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG	1	SEG	2	SEG3		SEC	G4	SEG	i5	SEG	i6
Explanation	PAG	E	Mod	le	Setting Ma	in address	100-digit unit ac		10-digit o uni		The unit of	
Remote Controller Display	Auto On				Cool		Cool		Dry			
	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
Indication					0	No Main address						
and Details	0		A		1	Main address setting mode	0~9	100-digit	0~9	10-digit	0~9	A unit digit
Option	SEG	7	SEG	8	SEC	39	SEG	510	SEG	11	SEG	12
Explanation	PAG	E			Setting RM	IC address			Group cha	nnel(*16)	Group a	ddress
Remote Controller Display					Fan On B					t L	Hea On I	
	Indication	Details	_		Indication	Details	_	_	Indication	Details	Indication	Details
Indication					0	No RMC address						
and Details	1				1	RMC address setting mode			RMC1	0~F	RMC2	0~F



- ♦ When "A"~"F" is entered to SEG5~6, the indoor unit MAIN ADDRESS is not changed.
- ♦ If you set the SEG 3 as 0, the indoor unit will maintain the previous MAIN ADDRESS even if you input the option value of SEG5~6.
- ♦ If you set the SEG 9 as 0, the indoor unit will maintain previous RMC ADDRESS even if you input the option value of SEG11~12.
- ♦ You cannot set SEG11 and SEG12 as F value at the same time.

Setting an indoor unit installation option (suitable for the condition of each installation location)

- 1. Check whether power is supplied or not.
 - When the indoor unit is not plugged in, there should be additional power supply in the indoor unit.
- Indoor Unit ILL F2 ILL F2 ILL F1 ILL
- The panel(display) should be connected to an indoor unit to receive option.
- Set the installation option according to the installation condition of an air conditioner.
 - The default setting of an indoor unit installation option is "020010-100000- 200000-300000".
 - Individual control of a remote controller(SEG20) is the function that controls an indoor unit individually when there is more than one indoor unit.
- 4. Set the indoor unit option by wireless remote controller.

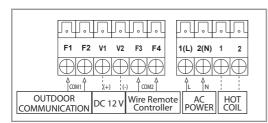
■ 02 series installation option

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	2		External room temperature sensor / Minimizing fan operation when thermostat is off	Central control	FAN RPM compensation
SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	Drain pump	Hot water heater	-	EEV Step when heating stops	-
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	External control	External control output / External heater On or Off signal	S-Plasma ion	Buzzer	Number of hours using filter
SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	Individual control of a remote controller	Heating setting compensation / Removing condensated water in heating mode	EEV Step of stopped unit during oil return/defrost mode	Motion detect sensor	-

- ◆ 1WAY/2WAY/4WAY MODEL: Drain pump(SEG8) will be set to 'USE + 3minute delay' even if the drain pump is set to 0.
- ◆ 1 WAY/2WAY/4WAY,DUCT MODEL: Number of hours using filter(SEG18) will be set to '1000hour' even if the SEG18 is set to exept for 2 or 6.
- ◆ When setting the option other than above SEG values, the option will be set as "0".
- SEG5 central control option is basically set as 1 (Use), so you don't need to set the central control
 option additionally.
 - However, if the central control is not connected but it doesn't indicate an error message, you need to set the central control option as 0 (Disuse) to exclude the indoor unit from the central control.

Setting an indoor unit address and installation option (Cont.)

• The output of hot water heater in SEG9 is generated from the hot coil part of the terminal board in duct models.



* The output of hot coil terminal is AC 220 V / 230 V (The same as Indoor Unit's input Power)

◆ The external output of SEG15 is generated by MIM-B14 connection. (Refer to the manual of MIM-B14.)

■ 02 series installation option(Detailed)

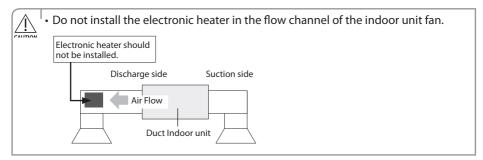
Option No.: 02XXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG	1	SE	G2	SEC	53		SEG4		SE	G5	9	EG6
Explanation	PAG	E	МО	DE	Use of robo	t cleaning	sensor /	cternal room to Minimizing far nen thermostat	n operation	Use of central control		FAN RPM compensation	
Remote Controller Display			Auto On D		Auto on 1		Cool		Cool		On Dry		
								Det	tails				
Indication and Details	Indication	Details	Indication	Details	Indication	Details	Indication	Use of External room temperature sensor	Minimizing fan operation when thermostat is off	Indication	Details	Indication	Details
and Details							0	Disuse	Disuse			0	Disuse
	0		2		0	Disuse	1	Use	Disuse	0	Disuse	1	RPM compensation
					1	Use	3	Disuse Use	Use (*1) Use (*1)	1	Use	2	High ceiling KIT
Option	SEG	7	SEG8		SEG9			SEG10		SEC	511	S	EG12
Explanation	PAG	E	Use of drain pump		Use of hot water heater						hen heating ops		
Remote Controller Display			On	Dry	Fan On B					Heat On D			
	Indication	Details	Indication	Details	Indication	Details	Indication	Det	tails	Indication	Details	Indication	Details
			0	Disuse	0	Disuse				0	Default value		
			1	Use	1	Use (*2)							
Indication and Details	1			When an indoor unit	2	-					Noise		
			2 stops, pump operat 3m		3	Use (^{*2})				1	decreasing setting		

Option	SEG	13	SEC	G14		SEG15		SE	G16		SEG17	SEC	G18					
Explanation	PAG	iΕ		external trol		output of ex	ternal control	S-Plas	ma ion	Ви	izzer control	Hours of f	ilter usage					
Remote Controller Display			Auto		/ Lxteri	Auto Off	L	or B	pi	Off	Cool	of B	Dry					
	Indication	Details	Indication	Details	Indication	Setting the output of external control	External heater On/ Off signal	Indication	Details	Indication	Details	Indication	Details					
Indication			0	Disuse	0	Thermo on	-	0	Disuse	0	Use buzzer	2	1000 Hour					
and Details			1	ON/OFF control	1	Operation on	-			1	Disuse buzzer							
	2		2	OFF control	2	-	Use (*3)	1 Use				6	2000 Hour					
			3	Window ON/OFF control	3	-	Use (*3)											
Option	SEG	19	SEC	520	SEG21			SEG22			SEG23	SEC	524					
Explanation	PAG	iΕ	Individual a remote	control of controller	Heating setting compensation / Removing condensated water in heating mode			EEV Step of stopped unit during oil return/ defrost mode		Motion detect sensor			-					
Remote Controller Display			Off	Dry		Fan or B		Fan	Fan		Heat							
	Indication	Details	Indication	Details	Indication		tails Removing Condensated Water in Heating Mode	Indication	Details	Indication	Details							
									Default	0	Disuse							
			0 or 1	channel 1	0	Default (*4)	Disuse	0	value	1	Turn out in 30min. without motion							
			2	channel 2	1	2 °C (3.6 °F)	Disuse			2	Turn out in 60min. without motion							
Indication			3	channel 3	2	5 °C (9 °F)	Disuse			3	Turn out in 120min. without motion							
and Details					3	Default (*4)	Use (*5)			4	Turn out in 180min. without motion							
	3				4	2 °C (3.6 °F)	Use (*5)	1	Oil return or Noise decreasing	5	Turn out in 30min. without motion or *advanced function							
			4	channel 4					in defrost mode	6	Turn out in 60min. without motion or *advanced function							
										5	5 °C (9 °F)	Use (*5)			7	Turn out in 120min. without motion or *advanced function		
												8	Turn out in 180min. without motion or *advanced function					

Setting an indoor unit address and installation option (Cont.)

- * Advanced function: Controlling cooling/heating current or power saving with motion detect.
- (*1) Minimizing fan operation when thermostat is off
 - Fan operates for 20 seconds at an interval of 5 minutes in heat mode.
- (*2) 1: Fan is turned on continually when the hot water heater is turned on,
 - 3: Fan is turned off when the hot water heater is turned on with cooling only indoor unit
 - Cooling only indoor unit: To use this option install the Mode Select switch(MCM-C200) on the outdoor unit and fix it as cool mode.
- (*3) When the following 2 or 3 is used as external heater On/Off signal, the signal for monitoring external contact control will not be output. 2: Fan is turned on continually when the external heater is turned on,
 - 3: Fan is turned off when the external heater is turned on with cooling only indoor unit
 - Cooling only indoor unit: To use this option, install the Mode Select switch (MCM-C200) on the outdoor unit and fix it as cool mode.
- If Fan is set to off for cooling only indoor unit by setting the SEG9=3 or SEG15=3, you need to use an external sensor or wired remote
 controller sensor to detect indoor temperature exactly.
- (*4) Default setting value
 - 4Way Cassette, Mini 4Way Cassette: 9 °F(5 °C)
 - Other indoor units: 3.6 °F(2 °C)
- (*5) This function can be applied to 4 Way Cassette and Mini 4 Way Cassette only. If the air conditioner operates the heating mode immediately after finishing the cooling mode, the condensated water in the drain pan becomes water vapor by the heat of the indoor unit heat exchanger. Since the water vapor might be condensed on the indoor unit, which may fall into a living space, use this function to get rid of the water vapor out of the indoor unit by operating the fan (for maximum 20 minutes) even when the indoor unit is turned off after cooling mode is turned to heating mode.



■ 05 series installation option

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	5	Use of Auto Change Over for HR only in Auto mode	(When setting SEG3) Standard heating temp. Offset	(When setting SEG3) Standard cooling temp. Offset	(When setting SEG3) Standard for mode change Heating → Cooling
SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	(When setting SEG3) Standard for mode change Cooling → Heating	(When setting SEG3) Time required for mode change	Compensation option for Long pipe or height difference between indoor units	-	_
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	_	_	_	_	Control variables when using hot water / external heater
SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	_	_	_	_	_

■ 05 series installation option(Detailed)

Option No.: 05XXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG1	1	SE	G2	SEC	i3	SE	EG4	SE	:G5	SEG6		
Explanation	PAG	E	MC			Use of Auto Change Over for HR only in Auto mode (When setting S Standard heat temp. Offse		d heating	(When setting SEG3) Standard cooling temp. Offset		cha	tting SEG3) I for mode ange → Cooling	
Remote Controller Display			Auto On 5	8	On B		Cool On B		Cool On Do		on 8	Dry	
	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	
	0					Follow product option	0	0°F(0°C)	0	0°F(0°C)	0	1.8°F(1°C)	
Indication							1	0.9°F(0.5°C)	1	0.9°F(0.5°C)	1	2.7°F(1.5°C)	
and Details			5				2	1.8°F(1°C)	2	1.8°F(1°C)	2	3.6°F(2°C)	
una Details)		Use Auto	3	2.7°F(1.5°C)	3	2.7°F(1.5°C)	3	4.5°F(2.5°C)	
					1	Change Over for	4	3.6°F(2°C)	4	3.6°F(2°C)	4	5.4°F(3°C)	
						HR only	5	4.5°F(2.5°C)	5	4.5°F(2.5°C)	5	6.3°F(3.5°C)	
							6	5.4°F(3°C)	6	5.4°F(3°C)	6	7.2°F(4°C)	
							7	6.3°F(3.5°C)	7	6.3°F(3.5°C)	7	8.1°F(4.5°C)	
Option	SEG	7	SE	G8	SEC	5 9	SE	G10	SE	G11	SE	G12	
Explanation	PAG	E	Standard changing	tting SEG3) for mode Cooling → g mode	(When sett Time requ mode d	uired for	for Long pi diffference	ation option pe or height te between or units					
Remote Controller Display			On [Dry	Fan On B		Fan On	8					
	Indication	Details	Indication	Details	Indication	Details	Indication	Details					
			0	1.8°F(1°C)	0	5 min.	0	Use default value					
			1	2.7°F(1.5°C)	1	7 min.		1) Height					
			2	3.6°F(2°C)	2	9 min.		difference ¹⁾					
Indication and Details	1		3	4.5°F(2.5°C)	3	11 min.	1	is more than 30m or 2) Distance ²⁾ is longer than 110m					
	4 5.4°F(3°C) 4 13 min.												
		5 6.3°F(3.5°C) 5 15 min.		in. difference ¹⁾ is									
		6	7.2°F(4°C)	6	20 min.	_ 2	15~30m or 2) Distance ²⁾ is						
			7	8.1°F(4.5°C)	7	30 min.		50~110m					

Setting an indoor unit address and installation option (Cont.)

Option	SEG13	SEG14	SEG15	SEG16	SEG	i17	SEG18 ^(*3)						
Explanation							Con	trol variables when using hot wat	er / external heater				
Remote Controller Display								or B B					
							Indication	Details	5				
							indication	Set temp. for heater On/Off	Delay time for heater On				
							0	At the same time as thermo on	No delay				
							1	At the same time as thermo on	10 minutes				
							2	At the same time as thermo on	20 minutes				
							3	2.7 °F(1.5 °C)	No delay				
							4	2.7 °F(1.5 °C)	10 minutes				
							5	2.7 °F(1.5 °C)	20 minutes				
Indication and Details							6	5.4 °F(3.0 °C)	No delay				
and Details	2						7	5.4 °F(3.0 °C)	10 minutes				
							8	5.4 °F(3.0 °C)	20 minutes				
							9	8.1 °F(4.5 °C)	No delay				
							Α	8.1 °F(4.5 °C)	10 minutes				
							В	8.1 °F(4.5 °C)	20 minutes				
							С	10.8 °F(6.0 °C)	No delay				
							D	10.8 °F(6.0 °C)	10 minutes				
							E 10.8 °F(6.0 °C) 20 minutes						

(*1) Height difference: The difference of the height between the corresponding indoor uint and the indoor unit installed at the lowest place. For example, When the indoor unit is installed 131.2ft(40m) higher than the indoor unit installed at the lowest place, select the option "1".

(*2) Distance: The difference between the pipe length of the indoor unit istalled at farthest place from an outdoor unit and the pipe length of the corresponding indoor unit from an outdoor unit.

For example, when the farthest pipe length is $100 \,\mathrm{m}(328\,\mathrm{ft})$ and the corresponding indoor unit is $40 \,\mathrm{m}(131.23\,\mathrm{ft})$ away from an outdoor unit, select the option "2".

[328-131.2=196.8ft(100 - 40 = 60m)]

(*3) Heater operation when the SEG9 of 02 series installation option is set to using hot water heater or when SEG15 is set to using external heater

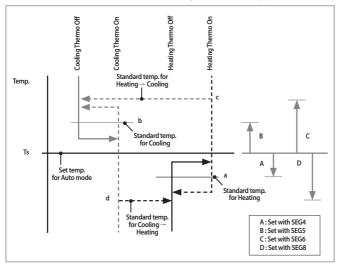
- e.g. 1) Setting 02 series SEG9 ="1"/ Setting 05 series SEG18 ="0": Hot water heater is turned on at the same time as the heating thermostat is on, and turned off when the heating thermostat is off.
- e.g. 2) Setting 02 series SEG15 ="2" / Setting 05 series SEG18 ="A":

Room temp. \leq set temp. + f(heating compensation temp.)

- External heater is turned on when the temperature is maintained as 8.1 °F(4.5 °C) for 10 minutes. Room temp. > set temp. + f(heating compensation temp.)
- External heater is turned off when the temperature is maintained as 8.1 °F(4.5 °C) + 1.8 °F(1 °C) (1 °C is the Hysteresis for On/Off selection.)

SEG 3, 4, 5, 6, 8, 9 additional information

When the SEG 3 is set as "1" and follow Auto Change Over for HR only operation, it will operate as follows.



Cooling/Heating mode can be changed when Thermo Off status is maintained during the time with SEG9.

Changing a particular option

You can change each digit of set option.

Option	SEG	1	SEG	2	SEG	3	SEG	i4	SEG	5	SEG	6
Explanation	Explanation PAGE		I M()I)⊢ I			The ontion mode		The tens' digit of an option SEG you will change		The unit digit of an option SEG you will change		value
Remote Controller Display			Auto On		Auto On		Cool		Cool		On B	Dry
	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
Indication and Details	0		D		Option mode	1~6	Tens' digit of SEG	0~9	Unit digit of SEG	0~9	The changed value	0~F

Note

- · When changing a digit of an indoor unit address setting option, set the SEG3 as 'A'.
- When changing a digit of indoor unit installation option, set the SEG3 as '2'.

Ex) When setting the 'buzzer control' into disuse status.

Option	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
Explanation	PAGE	MODE	The option mode you want to change	The tens' digit of an option SEG you will change	The unit digit of an option SEG you will change	Changed value
Indication	0	D	2	1	7	1



If you are using heat pump model, mixed operation mode (two or more indoor units operating in different operation mode simultaneously) is not available when the indoor units are connected to same outdoor unit. If you set an indoor unit as the main indoor unit by using the remote control, the outdoor unit automatically operates in the current mode of the main indoor unit.

Final check and trial operation

To complete the installation, perform the following checks and tests to ensure that the air conditioner operates correctly.

Check the following:

- Strength of the installation site
- Tightness of pipe connection to detect gas leak
- Electric wiring connection
- Heat-resistant insulation of the pipe
- Drainage
- Grounding conductor connection
- Correct operation (follow the steps below)

Providing information for user

After finishing the installation of the air conditioner, you should explain the following to the user. Refer to appropriate pages in the user & installation manual.

- How to start and stop the air conditioner
- 2 How to select the modes and functions
- 3 How to adjust the temperature and fan speed
- 4 How to adjust the airflow direction
- 5 How to set the timers
- 6 How to clean and replace the filters

Note When you complete the installation successfully, hand over the user & installation manual to the user for storage in a handy and safe place.

Troubleshooting

Detection of errors

- If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- ◆ If you re-operate the air conditioner, it operates normally at first, then detect an error again.

LED Display on the receiver & display unit

LED Display

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.
- When E108 error occurs, change the address and reset the system.Ex.) When address of the indoor unit #1 and #2 are set as 5, address of the indoor unit #1 will become 5 and indoor unit #2 will display E108, A002.

ENGLISH

Troubleshooting (Cont.)

Abnormal condition	Error code	<u>LED Display</u>				
			(1)	Se de la companya de		*
Error on indoor temperature sensor (Short or Open)	E121	X	•	×	×	×
1. Error on Eva-in sensor (Short or Open) 2. Error on Eva-out sensor (Short or Open) 3. Discharge sensor error (Short or Open)	E122 E123 E126	•	•	×	×	×
Indoor fan error	E154	×	×	•	×	×
Error on outdoor temperature sensor (Short or Open) Error on cond sensor Error on discharge sensor Other outdoor unit sensor error that is not on the above list	E221 E237 E251	•	×	•	×	×
1. When there is no communication between the indoor-outdoor units for 2 minutes 2. Communication error received from the outdoor unit 3. 3 miniute tracking error on outdoor unit 4. Communication error after tracking due to unmatching number of installed units 5. Error due to repeated communication address 6. Communication address not confirmed Other outdoor unit communication error that is not on the above list	E101 E102 E202 E201 E108 E109	×	•	•	×	×
Self diagnosis error display 1. Error due to opened EEV (2nd detection) 2. Error due to closed EEV (2nd detection) 3. Eva in sensor is detached 4. Eva out sensor is detached 5. Thermal fuse error (Open)	E151 E152 E128 E129 E198	×	•	•	•	×
1. COND mid sensor is detached 2. Refrigerant leakage (2nd detection) 3. Abnomally high temperature on Cond (2nd detection) 4. Low pressure s/w (2nd detection) 5. Abnomally high temperature on discharged air on outdoor unit (2nd detection) 6. Indoor operation stop due to unconfirmed error on outdoor unit 7. Error due to reverse phase detection 8. Comp stop due to freeze detection (6th detection) 9. High pressure sensor is detached 10. Low pressure sensor is detached 11. Outdoor unit copression ration error 12. Outdoor sump down_1 prevetion control 13. Compressor down due to low pressure sensor prevention control_1 14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection) 15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection) Other outdoor unit self-diagnosis error that is not on the above list	E241 E554 E450 E451 E416 E559 E425 E403 E301 E306 E428 E413 E410 E180	×	•	•	•	×
Flowating s/w (2nd detection)	E153	×	×	•	•	×
EEPROM error	E162	•	•	•	•	•
EEPROM option error	E163	•	•	•	•	•
Error due to incompatible indoor unit	E164	×	×	×	•	×

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