Contents

Safety precautions

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

WARNING

- 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.
- The manufacturer shall not be responsible for damage originating from unauthorized changes or the improper connection of electric and 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 controller(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.
- Our units should be installed in compliance with the spaces shown in the installation manual, to ensure accessibility from both sides and allow repairs or maintenance operations to be carried out. The unit's components should be accessible and easy to disassemble without endangering people and objects.
  For this reason, when provisions of the installation manual are not complied with, the cost required to access and repair the units (in SAFETY CONDITIONS, as set out in prevailing regulations) with harnesses, ladders, scaffolding or any other elevation system will NOT be considered part of the warranty and will be charged to the end customer.
- This unit is intended for free-air discharge or for connection to a duct supplying only one room.

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.
- Devices disconnected from the power supply should be completely disconnected in the condition of overvoltage category.

⚠ CAUTION

- 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.

Preparation for installation

When deciding on the location of the air conditioner with the owner, the following restrictions must be taken into account.

General

Do NOT install the air conditioner in a location where it will come into contact with the following elements :

- Combustible gases
- Saline air
- Machine oil
- Sulphide gas
- Special environmental conditions

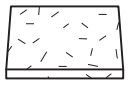
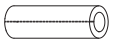
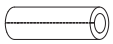
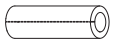
If you must install the unit in such conditions, first consult your dealer.

Avoid installing the air conditioner :

- In areas where it is exposed to direct sunlight. Close to heat sources.
- In damp areas or locations where it could come into contact with water. (for example rooms used for laundry)
- In areas where curtains and furniture could affect the supply and discharge of air.
- Without leaving the required minimum space around the unit. (as shown in the drawing)
- In scarcely ventilated areas.
- On surfaces that are unable to support the weight of the unit without deforming, breaking or causing vibrations during the use of the air conditioner.
- In a position that does not enable the condensate drainage pipe to be correctly installed. (at the end of the installation. It is always essential to check the efficiency of the drainage system)

Accessories

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

User's manual(1) 	Installation manual(1) 	Flexible hose (1) 	Insulation drain (1) 	Thermal insulation sponge A (1) 
Thermal insulation sponge B (1) 	Thermal insulation sponge C (1) 	Clamp hose(1) 	Rubber(8) 	Cable-tie(8) 

Wired remote control accessories

Wired remote control(1) 	Cable-tie(2) 	Cable clamp(4) 	M4x16 tapped screw(5) 	
Indoor unit power drawing cable(1) 	Communication cable of the wired remote control (1) 	Wire joint(4) 	User's manual (1) 	Installation manual (1) 

Deciding on where to install the indoor unit

Indoor unit

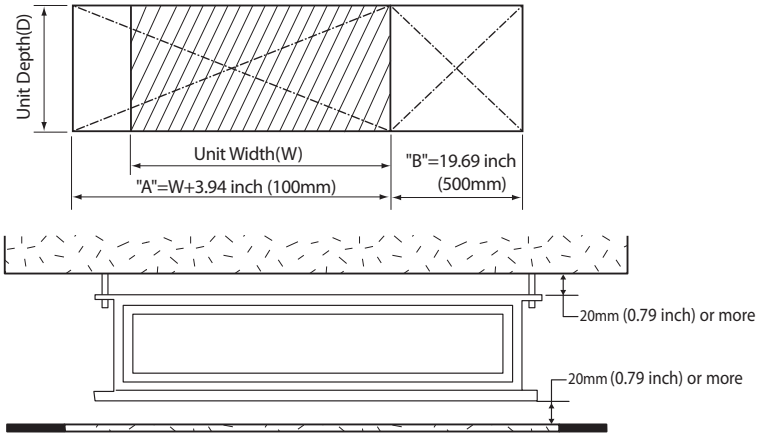
- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a ceiling that can support its weight.
- Maintain sufficient clearance around the indoor unit.
- Make sure that the water dripping from the drain hose runs away correctly and safely.
- The indoor unit must be installed in this way, that they are out of public access. (Not touchable by the users)
- After connecting a chamber, insulate the connection part between the indoor unit and the chamber with t10 or thicker insulation. Otherwise, there can be air leak or dew from the connection part.

Space requirements for installation & service

■ Construction Standard for Inspection Hole

1) In case, the ceiling is tex tile, Inspection hole dose not need.

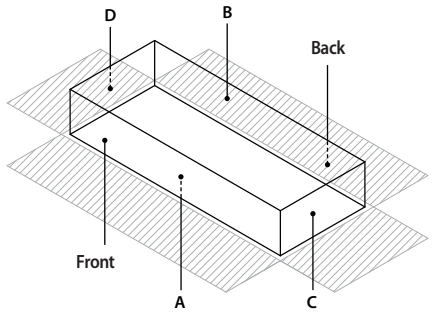
2) In case, the ceiling is plaster board, Inspection hole depends on Inside height of the ceiing.
   a. Height is more than 1.64ft (0.5m) : Only "B" [Inspection for PBA] is applied.
   b. Height is less than 1.64ft (0.5m) : Both "A"&"B" are applied.
   c. "A"&"B" are inspection holes .



- You must have 0.79 inch (20mm) or more space between the ceiling and the bottom of indoor unit. Otherwise, the noise from the vibration of indoor unit may bother the user.When the ceiling is under construction, the hole for check-up must be made to take service, clean and repair the unit.
- It is possible to install the unit at an height of between 7.2~8.2 ft(2.2~2.5m) from the ground, if the unit has a duct with a well defined lenght [11.81 inch(300mm) or more], to avoid fan motor blower contact.
- If you install the cassette or duct type indoor unit on the ceiling with humidity over 80%, you must apply extra 0.39inch(10mm) of polyethylene foam or other insulation with similar material on the body of the indoor unit.

Deciding on where to install the indoor unit

Insulation Guide



Thickness: more than 0.39 inch(10 mm)

unit: inch (mm)

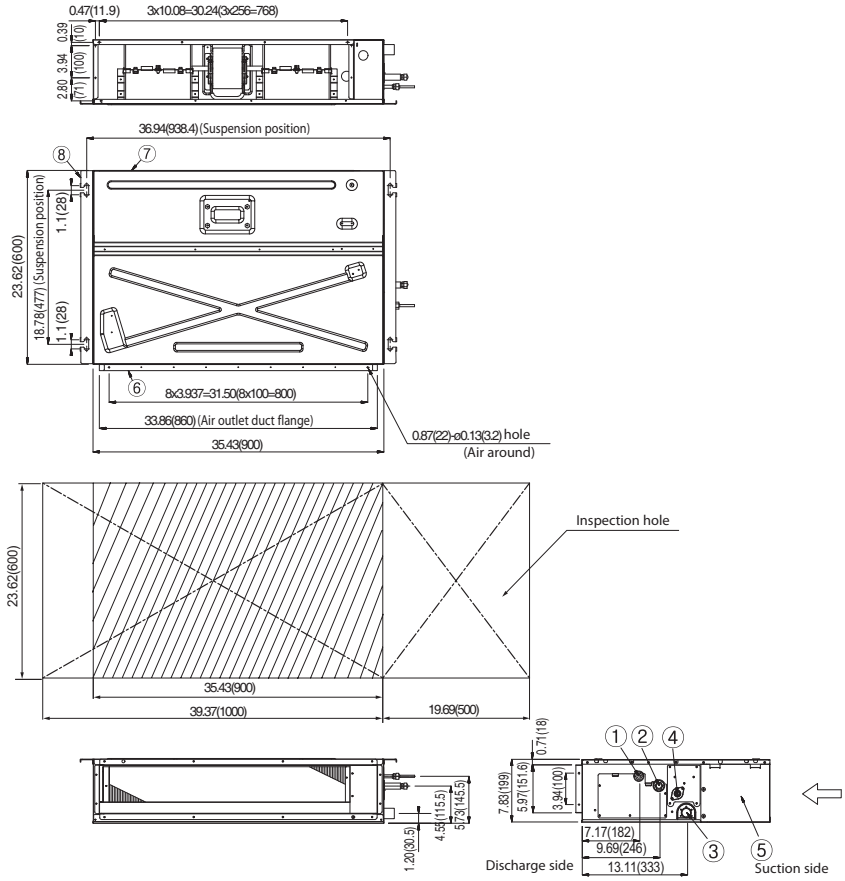
Indoor Unit		A	B	C	D	Front/Back
AJ009JNLDCH AJ012JNLDCH	35.43*23.62*7.83 (900*600*199)	35.43*23.62 (900*600)	35.43*23.62 (900*600)	23.62*7.83 (600*199)	23.62*7.83 (600*199)	Insulate the front and back side in proper size at the same time when insulating the suction duct and discharge duct.
AJ018JNLDCH	43.31*23.62*7.83 (1100*600*199	43.31*23.62 (1100*600)	43.31*23.62 (1100*600)	23.62*7.83 (600*199)	23.62*7.83 (600*199)	

◆ **Insulate the end of the pipe and some curved area by using separate insulator.**
◆ **Insulate the discharge and suction part at the same time when you insulate connection duct.**

Drawing of the indoor unit

Unit: inch(mm)

AJ009JNLDCH / AJ012JNLDCH

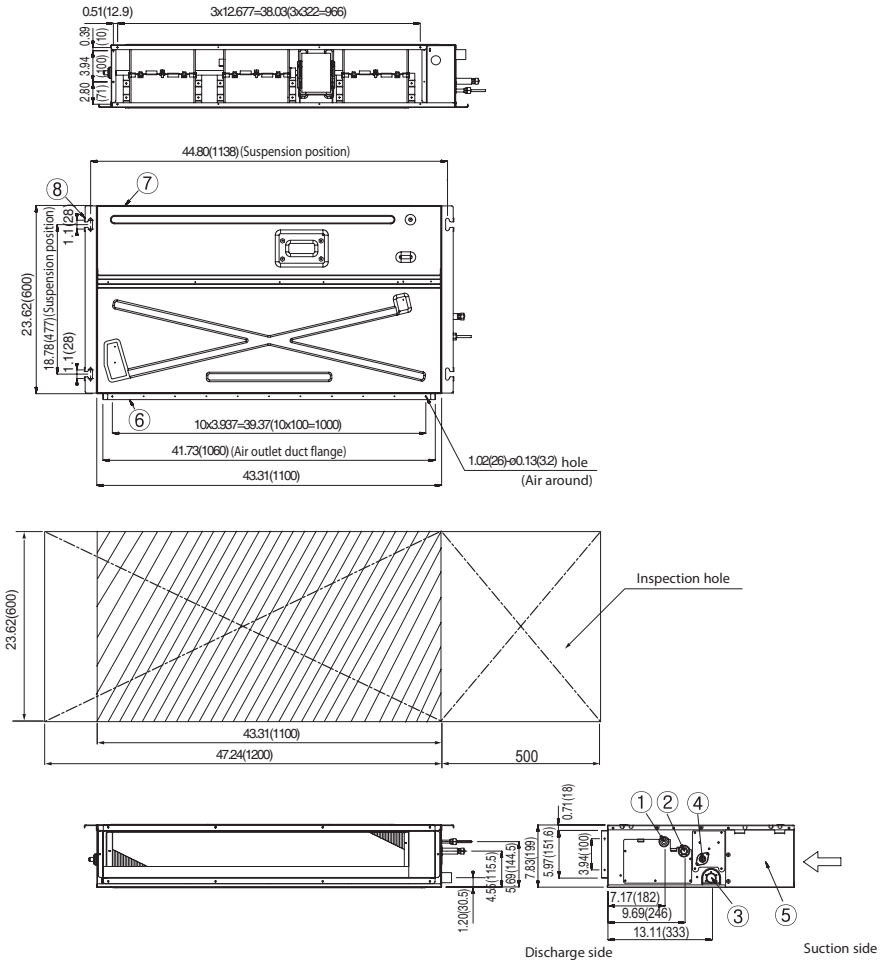


No.	Name	Description
1	Liquid pipe connection	ø1/4"(6.35)
2	Gas pipe connection	ø3/8"(9.52)
3	Drain pipe connection	ODø0.98"(25) IDø0.79"(20)(without drain pump)
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	Air discharge flange	
7	Air filter	
8	Hook	M8~M10

Deciding on where to install the indoor unit

AJ018JNLDCH

Unit: inch(mm)

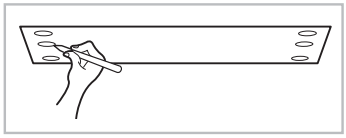


No.	Name	Description
1	Liquid pipe connection	ø6.35(1/4")
2	Gas pipe connection	ø12.70(1/2")
3	Drain pipe connection	ODø0.98"(25) IDø0.79"(20)(without drain pump)
4	Drain pipe connection	Using drain pump (Optional)
5	Power supply connection	
6	Air discharge flange	
7	Air filter	
8	Hook	M8~M10

Indoor unit installation

When deciding on the location of the air conditioner with the owner, the following restrictions must be taken into account.

1 Place the pattern sheet on the ceiling at the spot where you want to install the indoor unit.

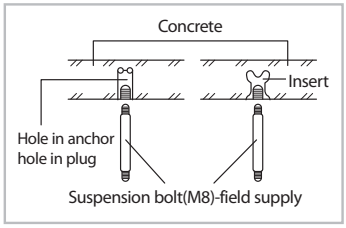


NOTE

- Since the diagram is made of paper, it may shrink or stretch slightly due to temperature or humidity. For this reason, before drilling the holes maintain the correct dimensions between the markings.

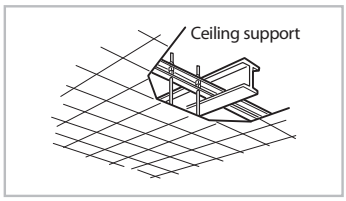
2 Insert bolt anchors. Use existing ceiling supports or construct a suitable support as shown in figure.

3 Install the suspension bolts depending on the ceiling type.



CAUTION

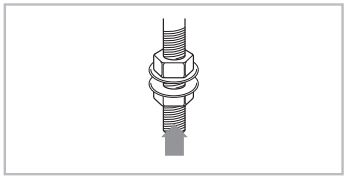
- Ensure that the ceiling is strong enough to support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.
- If the length of suspension bolt is more than 4.92ft(1.5m), it is required to prevent vibration.
- If this is not possible, create an opening on the false ceiling in order to be able to use it to perform the required operations on the indoor unit.



4 Screw eight nuts to the suspension bolts making space for hanging the indoor unit.

NOTE

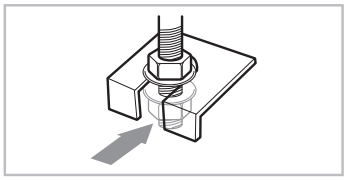
- You must install all the suspension rods.



5 Hang the indoor unit to the suspension bolts between two nuts.

CAUTION

- Piping must be laid and connected inside the ceiling when suspending the unit. If the ceiling is already constructed, lay the piping into position for connection to the unit before placing the unit inside the ceiling.

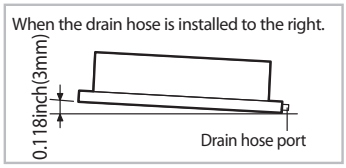


6 Screw the nuts to suspend the unit.

7 Adjust level of the unit by using measurement plate for all 4 sides.

CAUTION

- For proper drainage of condensate, give a 0.118inch(3mm) slant to the left or right side of the unit which will be connected with the drain hose, as shown in the figure. Make a tilt when you wish to install the drain pump, too.

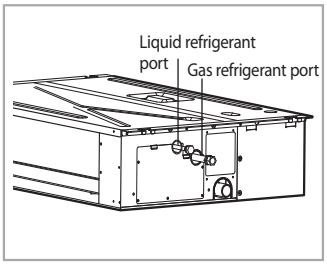


Purging the unit

From factory the unit is supplied and set with a pre-charge of nitrogen gas. (insert gas) Therefore, all insert gas must be purged before connecting the assembly piping.

Unscrew the pinch pipe at the end of each refrigerant pipe.

RESULT : All inert gas escapes from the indoor unit.



NOTE

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

CAUTION

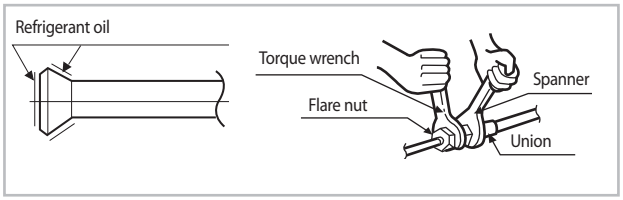
- Connect the indoor and outdoor units using pipes with flared connections(not supplied). For the lines, use insulated, unwelded, degreased and deoxidized copper pipe (Cu DHP type to ISO 1337 or UNI EN 12735-1), suitable for operating pressures of at least 4200kPa and for a burst pressure of at least 20700kPa. Copper pipe for hydro-sanitary applications is completely unsuitable.
- For sizing and limits (height difference, line length, max. bends, refrigerant charge, etc.) see the outdoor unit installation manual.
- All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.

Connecting the refrigerant pipe

There are two refrigerant pipes of different 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

1. **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.**



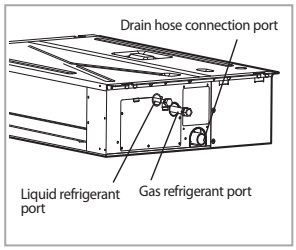
Outer Diameter (D)	Torque [N•m(ft•lb)]
ø6.35 mm(1/4″)	18(13.3)
ø9.52 mm(3/8″)	42(31.0)
ø12.70 mm(1/2″)	55(40.6)
ø15.88 mm(5/8″)	65(48.0)
ø19.05 mm(3/4″)	100(73.8)

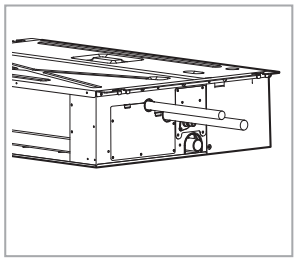
NOTE

- If the pipes must be shortened refer to page 12.

2. **Must use insulator which is thick enough to cover the refrigerant tube to protect the condensate water on the outside of pipe falling onto the floor and the efficiency of the unit will be better.**
3. **Cut off any excess foam insulation.**
4. **Be sure that there must be no crack or wave on the bended area.**
5. **It would be necessary to double the insulation thickness(10mm or more) to prevent condensation even on the insulator when if the installed area is warm and humid.**
6. **Do not use joints or extensions for the pipes that connect the indoor and outdoor unit. The only permitted connections are those for which the units are designed.**

Slim Duct Type



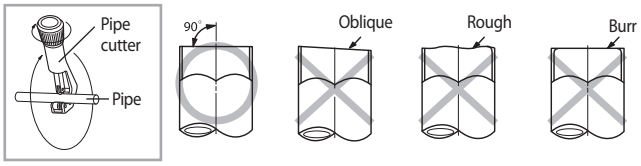


ENGLISH

Cutting/Flaring the pipes

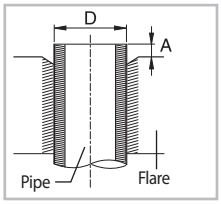
1. **Make sure that you have the required tools available. (pipe cutter, reamer, flaring tool and pipe holder)**

2. **If you wish to shorten the pipes, cut it with a pipe cutter, taking care to ensure that the cut edge remains at a 90° angle with the side of the pipe. Refer to the illustrations below for examples of edges cut correctly and incorrectly.**



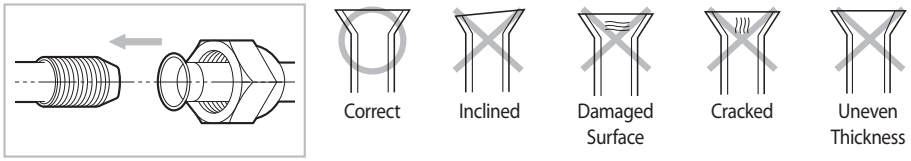
3. **To prevent any gas from leaking out, remove all burrs at the cut edge of the pipe, using a reamer.**

4. **Slide a flare nut on to the pipe and modify the flare.**



Outer Diameter (D)	Depth (A)
ø6.35 mm(1/4")	0.051inch(1.3 mm)
ø9.52 mm(3/8")	0.071inch(1.8 mm)
ø12.70 mm(1/2")	0.079inch(2.0 mm)
ø15.88 mm(5/8")	0.087inch(2.2 mm)
ø19.05 mm(3/4")	0.087inch(2.2 mm)

5. **Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.**



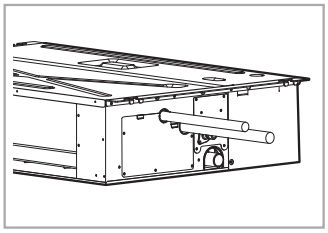
6. **Align the pipes and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.**

Valve	Flare nut		Valve cap		Pressure port cap		Valve needle		Pressure port	
	Wrench [inch(mm)]	ft•lb (N•m)	Wrench [inch(mm)]	ft•lb (N•m)	Wrench [inch(mm)]	ft•lb (N•m)	Wrench [inch(mm)]	ft•lb (N•m)	Wrench [inch(mm)]	ft•lb (N•m)
1/4"	0.67(17)	13.3(18)	0.91(23)	14.8(20)	0.71(18)	11.8~13.3(16~18)	Allen(hex.) 0.2(5)	6.6(9)	-	0.25(0.34)
3/8"	0.87(22)	31.0(42)	0.91(23)	14.8(20)	0.71(18)	11.8~13.3(16~18)	Allen(hex.) 0.2(5)	6.6(9)	-	0.25(0.34)
1/2"	1.02(26)	40.6(55)	1.14(29)	29.5(40)	0.71(18)	11.8~13.3(16~18)	Allen(hex.) 0.2(5)	9.6(13)	-	0.25(0.34)
5/8"	1.14(29)	47.9(65)	1.14(29)	29.5(40)	0.71(18)	11.8~13.3(16~18)	Allen(hex.) 0.2(5)	9.6(13)	-	0.25(0.34)
3/4"	1.42(36)	73.8(100)	1.50(38)	29.5(40)	0.71(18)	11.8~13.3(16~18)	Allen(hex.) 0.2(5)	9.6(13)	-	0.25(0.34)

CAUTION
- If the pipes require brazing ensure that OFN (Oxygen Free Nitrogen) is flowing through the system.
- Nitrogen blowing pressure range is 0.02 ~ 0.05MPa.

Performing leak test & insulation

Slim Duct Type



Leak test

◆ ***LEAK TEST WITH NITROGEN (before opening valves)***
In order to detect basic refrigerant leaks, before recreating the vacuum and recirculating the R-410A, it's responsable of installer to pressurize the whole system with nitrogen (using a cylinder with pressure reducer) at a pressure above 40 bar (gauge).
◆ ***LEAK TEST WITH R-410A (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 R-410A.

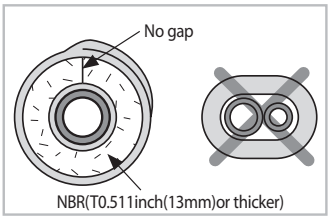
CAUTION
- Discharge all the nitrogen to create a vacuum and charge the system.

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 T0.511inch(13mm) or thicker Acrylonitrile Butadien Rubber separately around each refrigerant pipe.**

NOTE
- Always make the seam of pipes face upwards.

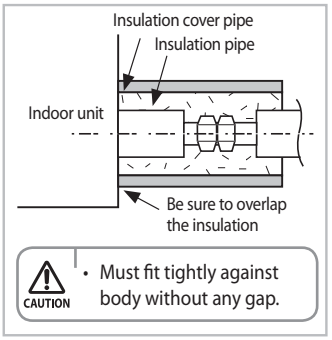


2 **Wind insulating tape around the pipes and drain hose avoiding to compress the insulation too much.**

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.**

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



CAUTION
- Must fit tightly against body without any gap.

5 **Select the insulation of the refrigerant pipe.**
- ◆ Insulate the gas side and liquid side pipe referring to the thickness according to the pipe size.
- ◆ Indoor temperature of 86°F(30°C) and humidity of 85% is the stan dard condition.
  If installing 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 248°F(120°C).

Performing leak test & insulation

Pipe	Pipe size		Insulation Type (Heating/Cooling)				Remarks
			Standard [86°F(30°C), less than 85%]		High humidity [86°F(30°C), over 85%]		
			EPDM, NBR				
	inch	mm	inch	mm	inch	mm	
Liquid pipe	Ø1/4~3/8	Ø6.35~9.52	9t	3/8	9t	3/8	Internal temperature is higher than 248°F(120°C)
	Ø1/2~3/4	Ø12.7~19.05	13t	1/2	13t	1/2	
Gas pipe	Ø1/4	Ø6.35	13t	1/2	19t	3/4	
	Ø3/8	Ø9.52	19t	3/4	25t	1	
	Ø1/2	Ø12.70					
	Ø5/8	Ø15.88					
	Ø3/4	Ø19.05					

◆ When installing insulation in places and conditions below, use the same insulation that is used for high humidity conditions.

<Geological condition>

- High humidity places such as shoreline, hot spring, near lake or river, and ridge (when the part of the building is covered by earth and sand.)

<Operation purpose condition>

- Restaurant ceiling, sauna, swimming pool etc.

<Building construction condition>

- The ceiling frequently exposed to moisture and cooling is not covered.

e.g. The pipe installed at a corridor of a dormitory and studio or near an exit that opens and closes frequently.

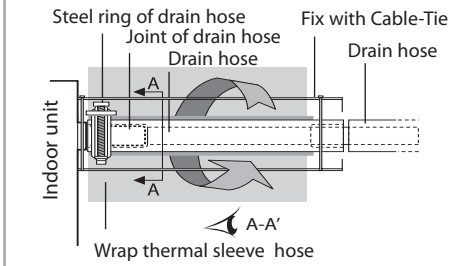
- The place where the pipe is installed is highly humid due to the lack of ventilation system.

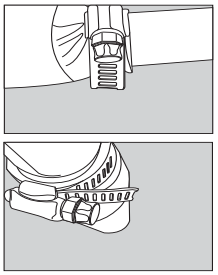
Drainpipe and drain hose installation

Care must be taken when installing the drain hose for the indoor unit to ensure that any condensate water is correctly drained outside.
The drain hose can be installed to the right of the base pan.

1 Installing the drain hose should be the shorter, the better.
- ◆ In order to discharge condensation water, the drain hose should keep tilted.
- ◆ Fix the drain hose with Cable-Tie, so that it will not separate from the machine.
- ◆ While using draining pump, connect the end with draining pump.

2 Insulate and fix the drain hose according to the figure.
- ◆ Insert the drain hose to bottom of the outfall of water basin.
- ◆ Lock steel ring of the drain hose according to the figure.
- ◆ Wind and wrap steel ring and drain hose fully with thermal insulation sponge; fix both ends of external layer with ribbon for thermal insulation.
- ◆ After being installed, drain hose must be insulated fully by heat insulating material. (To be provided at site.)





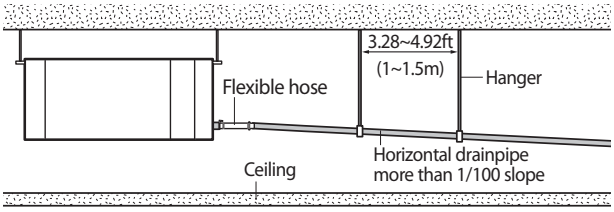
As shown in the figure, tighten steel ring of the drain hose.

Drainpipe and drain hose installation

Drainpipe Connection

Without the drain pump

1. Install horizontal drainpipe with a slope of 1/100 or more and fix it by hanger space of 3.28~4.92ft(1.0~1.5m).
2. Install U-trap at the end of the drainpipe to prevent a nasty smell to reach the indoor unit.
3. Do not install the drainpipe to upward position. It may cause water flow back to the unit.

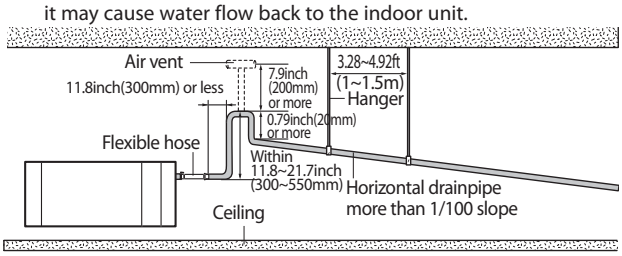


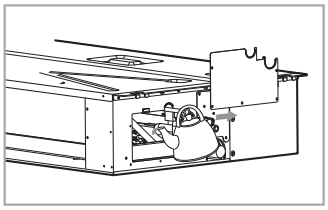
With the drain pump

1. The drain pipe should be installed within 11.8inch(300mm) to 21.7inch(550mm) from the flexible hose and then lift down 0.79inch(20mm) or more.
2. Install horizontal drainpipe with a slope of 1/100 or more and fix it by hanger space of 3.28~4.92ft(1.0~1.5m).
3. Install the air vent in the horizontal drainpipe to prevent water flow back to the indoor unit.

NOTE • You may not need to install it if there were proper slope in the horizontal drainpipe.

4. The flexible hose should not be installed upward position, it may cause water flow back to the indoor unit.





Testing the drainage

Prepare a little water about 5 liter.

1. Pour water into the base pan in the indoor unit as shown in figure.
2. Confirm that the water flows out through the drain hose.

Connecting the connection cord

CAUTION

- Always remember to connect the refrigerant pipes before performing the electric connections. When disconnecting the system, always disconnect the electric cables before disconnecting the refrigerant pipes.
- Always remember to connect the air conditioner to the grounding system before performing the electric connections.

The indoor unit is powered by the outdoor unit by means of a H07 RN-F connection cable (or a more power model), with insulation in synthetic rubber and jacket in polychloroprene(neoprene), in accordance with the requirements of standard EN 60335-2-40.

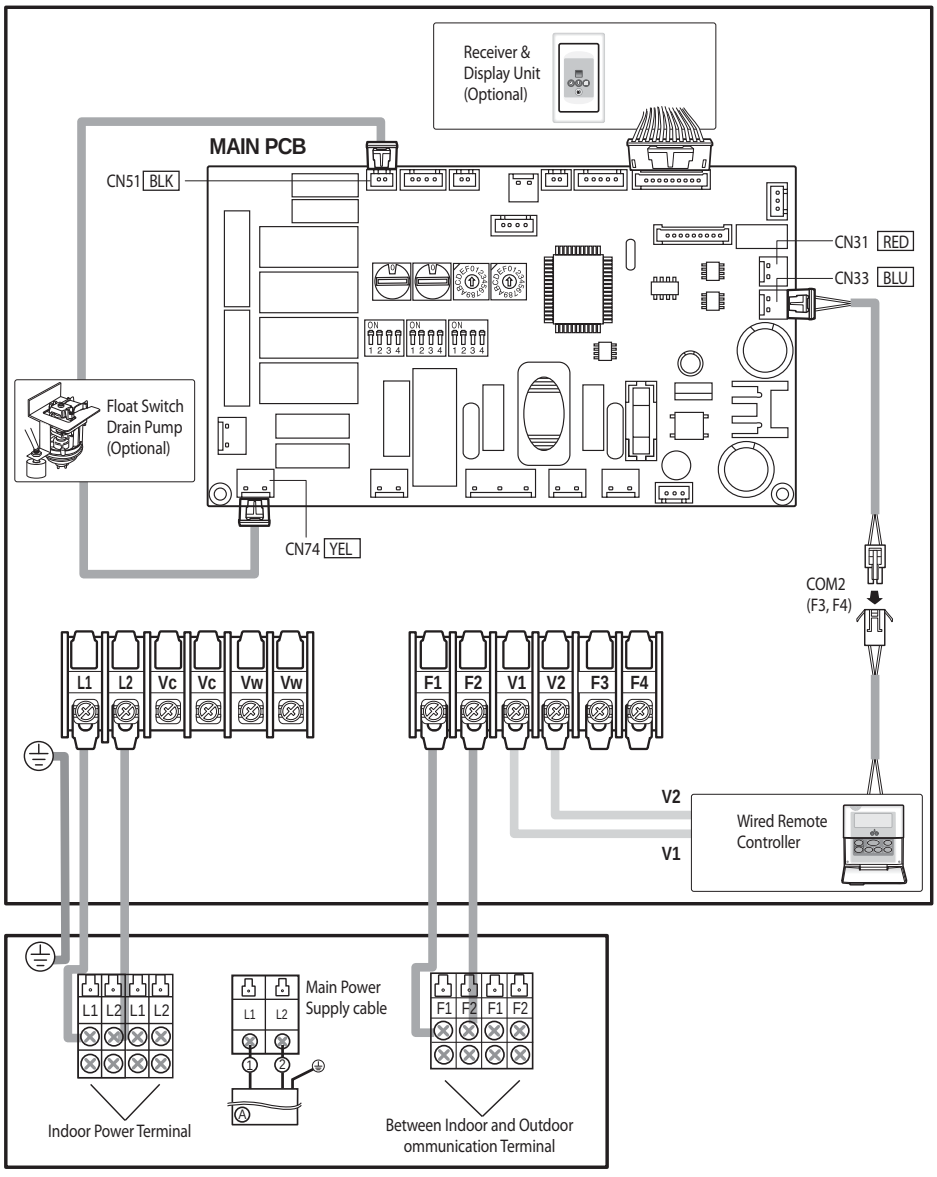
1. **Remove the screw on the electrical component box and remove the cover plate.**
2. **Route the connection cord through the side of the indoor unit and connect the cable to terminals; refer to the figure below.**
3. **Route the other end of the cable to the outdoor unit through the ceiling & the hole on the wall.**
4. **Reassemble the electrical component box cover, carefully tightening the screw.**

Connecting the connection cord

Wiring and Communication Cable Connection

Connect the power cable, which is connected with the outdoor unit and supplied by another source, making sure that the power cable terminal should not be changed.
The F3 and F4 communication cable may be cross-connected, however, it is recommended that they are connected to the corresponding F3 and F4 terminal.

Indoor Unit

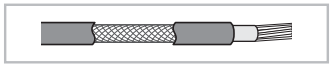


Outdoor Unit

Between Indoor and Outdoor Connection cable Specifications(Common in use)

Indoor Power supply			Communication Cable
Power Supply	Max/Min(V)	Indoor Power cable	
208-230V~, 60Hz	±10%	0.75~1.5mm^2,3wires	0.75~1.25mm^2,2wires

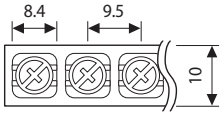
※ Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC:60245 IEC 57 / CENELEC: H05RN-F or IEC:60245 IEC 66 / CENELEC: H07RN-F)
※ Screws on terminal block must not be unscrewed with the torque less than 12 kgf•cm.
※ Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



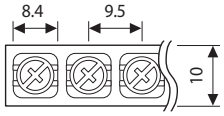
When installing the indoor unit in a computer room, use the double shielded(Tape aluminum / polyester braid + copper) cable of FROHH2R type.

Terminal Block SPEC (Indoor)

AC POWER : M4 SCREW

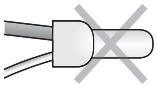


COMMUNICATION : M4 SCREW



WARNING

In case of extending the electric wire, please DO NOT use a round-shaped pressing socket.
- Incomplete wire connections can cause electric shock or a fire.



ENGLISH

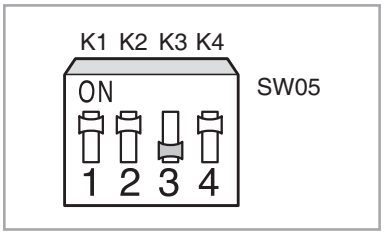
Increasing Fan Speed

If external static pressure is too great(due to long extension of ducts, for example), the air flow volume may drop too low at each air outlet. This problem can be solved by increasing the fan speed using the following procedure.

1. Remove the screw on the electrical component box and remove the cover plate.

2. Adjust the DIP switch(SW05) on the main PCB to the "OFF" position.

Switch No.	Switch Position	Function
K3	ON	Normal speed
	OFF	High speed



3. Re-install the cover plate and join the removed screw.

External Static Pressure

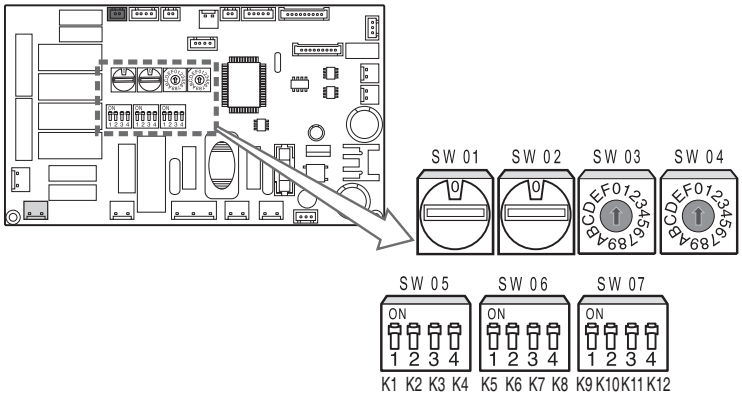
External Static Pressure (mmAq)	1.0	2.0✳	3.0	4.0
AJ009JNLDCH	015201-14021C-200001-300000	015201-14023E-200001-300000	015201-140390-200001-300000	015203-1403F9-200001-300000
AJ012JNLDCH	015201-16025F-200001-300000	015201-160370-200001-300000	015203-160183-200001-300000	015203-1603CE-200001-300000
AJ018JNLDCH	011224-1940D5-200001-300000	011224-1940E6-200001-300000	011224-1940F7-200001-300000	011224-194208-200001-300000

❉ Mark "✳" is the basic model of this product.
Refer to the table above depending on the installation environment.

Assigning Address to Indoor Unit

1. Before installing the indoor unit,assign an address to the indoor unit according to the air conditioning system plan.

2. The address of the indoor unit is assigned by adjusting MAIN(SW02) switch.



3. The MAIN address is for communication between the indoor unit and the outdoor unit. Therefore, you must set it to operate the air conditioner properly.

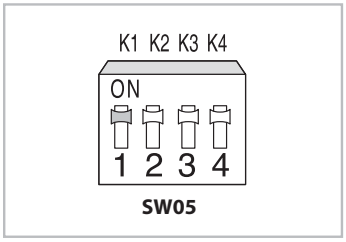
4. It is required to set the RMC address if you install the wired remote controller and/or the centralized controller.

5. If you install optional accessories such as the wired remote controller, centralized controller, etc. see an appropriate installation manual.

6. If an optional accessory is not installed, you do not have to set the RMC address. However, adjust K1 and K2 switches of the SW05 DIP switch to "ON" position in this case.

7. Set the MAIN address by adjusting the rotary switch(SW02) from 0 to 9. Each indoor unit connected to the same outdoor unit must have different address.

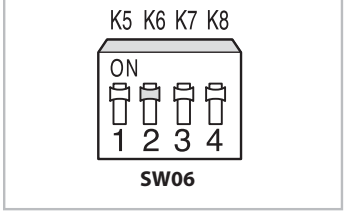
Additional Functions



SW05

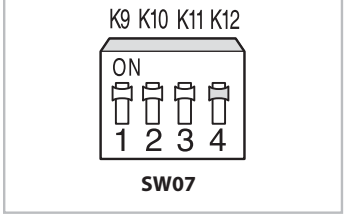
No.		Function	ON	OFF
SW05	K1	External room sensor	Not use	Use
	K2	Centralized controller	Not use	Use
	K3	Compensate RPM	Standard	Up
	K4	Drain Pump	Not use	Use

※ K1 OFF
Heating mode : Setting temperature compensation value = 0°C
Thermo OFF → Fan OFF



SW06

No.		Function	ON	OFF
SW06	K5	Indoor Temperature Compensation for Heating Mode	+2°C	+5°C
	K6	Filter Time	1,000 hours	2,000 hours
	K7	Hot Water Coil	Not Use	Use
	K8	-	-	-



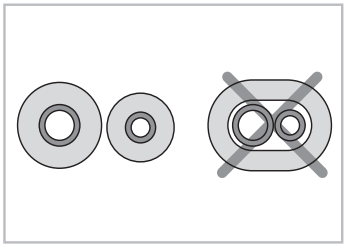
SW07

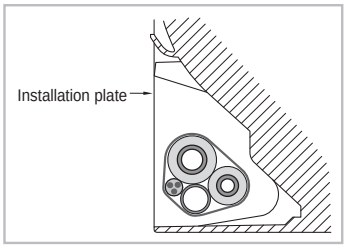
No.		Function	ON	OFF
SW07	K9	-	-	-
	K10	-	-	-
	K11	External control	Not Use	Use
	K12	External Control Output	Thermal ON	Operation ON

Placing the Indoor Unit in Position

Once you have checked that there are no leaks in the system, you can insulate the piping, hose and cables and place the indoor unit on the installation plate.

1. To avoid condensation problems, place heat-resistant olyethylene foam separately around each refrigerant pipe in the lower part of the indoor unit.
2. Wind insulating tape around the pipes, assembly cable and drain hose.
3. Place the resulting bundle carefully in the lower part of the indoor unit, making sure that it does not jut out from the rear of the indoor unit.
4. Hook the indoor unit on to the installation plate and move the unit to the right and left until you are sure that it is securely in place.
5. Finish wrapping vinyl tape around the rest of the piping leading to the outdoor unit.
6. Using clamps (optionally supplied), attach the piping to the wall wherever possible.





Troubleshooting

- If an error occurs during the operation, one or more 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

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	Green	Red				
	Standard Type					
Power reset	◑	X	X	X	X	
Error of temperature sensor in the indoor unit (Open/Short)	X	X	◑	X	X	Displayed on appropriate indoor unit which is operating
Error of heat exchanger sensor in the indoor unit Error of heat exchanger OUT sensor in indoor unit Error of outlet temperature sensor in indoor unit (Open/Short): For heat pump models only	◑	X	◑	X	X	Displayed on appropriate indoor unit which is operating
Error of mixed operation	X	◑	X	◑	X	
Error of outdoor temperature sensor Error of COND sensor Error of DISCHARGE sensor	◑	X	X	◑	X	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking. (Communication error for more than 2 minutes)	X	X	◑	◑	X	1. Error of indoor unit: Displayed on the indoor unit regardless of operation 2. Error of outdoor unit: Displayed on the indoor unit which is operating

● On ◑ Flickering X Off

- 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.

LED Display on the receiver & display unit

Abnormal conditions	Indicators					Remarks
	Concealed Type					
	Green	Red				
	Standard Type					
Self-diagnostic error (including the indoor unit not detected) 1. Error of electronic expansion valve close 2. Error of electronic expansion valve open 3. Breakaway of EVA OUT sensor 4. Breakaway of EVA IN sensor	X	X	◑	◑	◑	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
5. Breakaway of COND MID sensor 6. 2nd detection of refrigerant completely leak 7. 2nd detection of high temperature COND 8. 2nd detection of high temperature DISCHARGE 9. COMP DOWN due to 2nd detection of low pressure switch 10. Error of reverse phase 11. Compressor down due to 6th detection of freezing 12. Self-diagnosis of condensation sensor (G8, G9) 13. Compressor down due to condensation ratio control	X	X	◑	◑	◑	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
Error of float switch	X	X	X	◑	◑	
Error of setting option switches for optional accessories	X	X	◑	X	◑	
EEPROM error	◑	X	◑	◑	X	
EEPROM option error	◑	X	◑	◑	◑	

● On ◑ Flickering X Off

- 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.


SAMSUNG

Duct Type Series
AJ✳✳✳JNLDCH

Air Conditioner
installation manual

Planet First 100% Recycled Paper

This manual is made with 100% recycled paper.

imagine the possibilities

Thank you for purchasing this Samsung product.

EN ES FR DB68-04995A-00

SAMSUNG