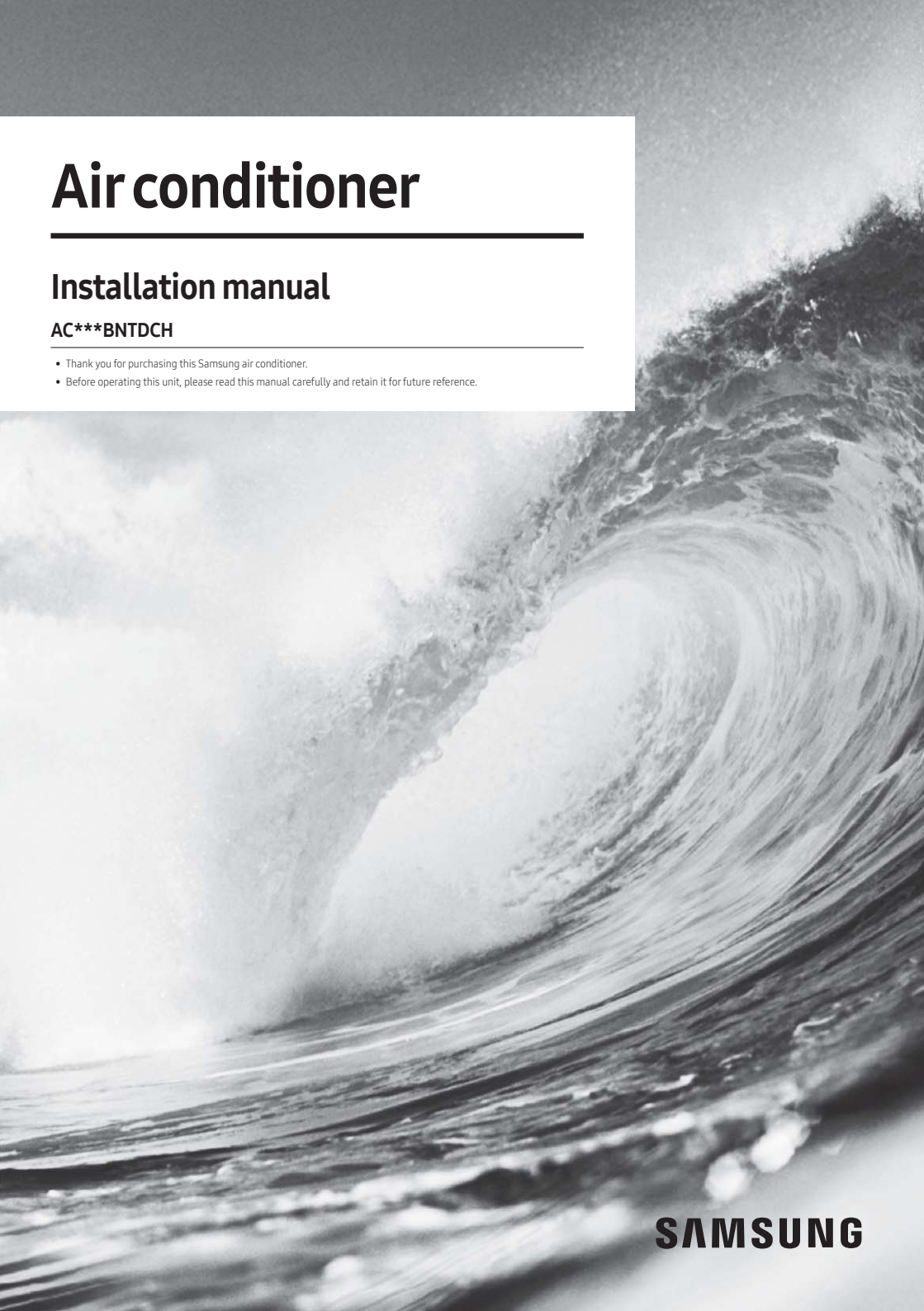


Air conditioner

Installation manual

AC***BNTDCH

- Thank you for purchasing this Samsung air conditioner.
- Before operating this unit, please read this manual carefully and retain it for future reference.



SAMSUNG

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Safety Information

California Proposition 65 Warning (US)



WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.



WARNING

- Hazards or unsafe practices that may result in severe personal injury or death.



CAUTION

- Hazards or unsafe practices that may result in minor personal injury or property damage.
- 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



WARNING

- 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 authorised centres or returned to the retailer so that it can be disposed of correctly and safely.
- Wear protective equipment (such as safety gloves, goggles, and headgear) during installation and maintenance works. Installation/repair technicians may be injured if protective equipment is not properly equipped.

Safety Information

Installing the unit



WARNING

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.
- Excessive indoor humidity or clogged condensate drain lines may cause water to drip from indoor units. Do not install the indoor unit where dripping could result in damage to property, such as above electronic equipment or other sensitive instruments
- 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.

Power supply line, fuse or circuit breaker



WARNING

- 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.
- Be sure not to perform power cable modification, extension wiring, and multiple wire connection.
 - It may cause electric shock or fire due to poor connection, poor insulation, or current limit override.
 - When extension wiring is required due to power line damage, refer to "Step 14 Optional: Extending the power cable" in the installation manual.



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 use the indoor unit for preservation of food items, plants, equipment, and art works. This may cause deterioration of their quality.

Do not install the indoor unit if it has any drainage problem.

Installation Procedure

Step1 Checking and preparing accessories and tools

Accessories

Accessories in the indoor unit package

Installation plate (1)	Remote control (1)
	
Remote control battery (2)	User Manual (1)
	
Installation Manual (1)	Remote Control Holder (1)
	
Tapped Screws M4 x16 (2)	
	

Tools

General tools

- Vacuum pump (Backward flowing prevention)
- Manifold gauge
- Stud finder
- Torque wrench
- Pipe cutter
- Reamer
- Pipe bender
- Spirit level
- Screwdriver
- Spanner
- Drill
- L-wrench
- Measuring tape

Tools for test operation

- Thermometer
- Resistance meter
- Electroscope

Step2 Choosing the installation location

Installation location requirements

- 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.
- Before installing the indoor unit, be sure to check whether the chosen location is well-drained.

WARNING

- Minimum installation height of indoor unit is 1.97 ft (0.6 m) for floor mounted, 5.9 ft (1.8 m) for wall, 7.22 ft (2.2 m) for ceiling.

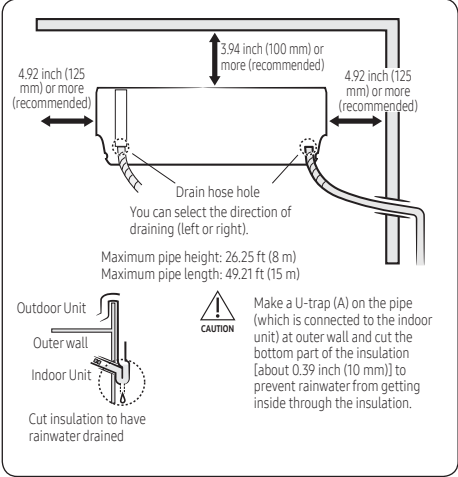
CAUTION

Do not install the air conditioner in following places.

- The 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.
- The place where animals may urinate on the product. Ammonia may be generated.
- The place where is close to heat sources.

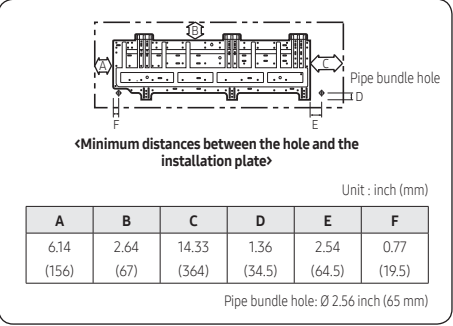
Installation Procedure

Overview of installation location requirements



CAUTION

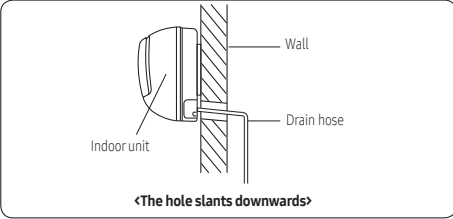
- If changing the pipe direction from left to right, do not drastically bent it but slowly turn it in the opposite direction as shown. Otherwise, the pipe may be damaged in the process.



- 2 Drill the hole.

CAUTION

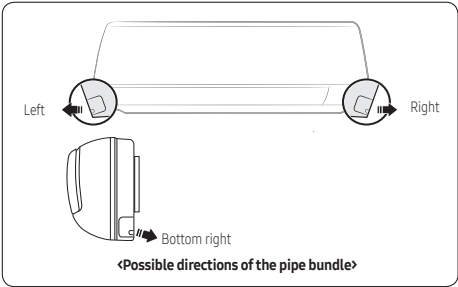
- Be sure to drill only one hole.
- Make sure that the hole slants downwards so that the drain hose slants downwards to drain water well.



Step 3 Drilling a hole through the wall

Before fixing the installation plate to a wall and then fixing the indoor unit to the installation plate, a window frame, or a gypsum board, you must determine the position of a hole [with 2.56 inch (65 mm) inner diameter] through which the pipe bundle (consisting of power and communication cables, refrigerant pipes, and drain hose) will pass and then drill that hole.

- 1 Determine the position of a 2.56 inch (65 mm) hole in consideration of the possible directions of the pipe bundle and the minimum distances between the hole and the installation plate.



Step 4 Fixing the installation plate

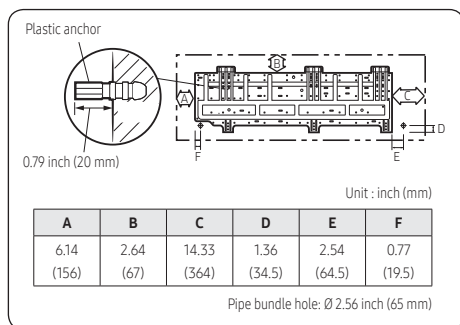
You can install the indoor unit on a wall, window frame, or gypsum board.

⚠ WARNING

- Make sure that the wall, window frame, or gypsum board can withstand the weight of the indoor unit. If you install the indoor unit in a place where it is not strong enough to withstand the unit's weight, the unit could fall and cause injury.

When fixing the indoor unit on a wall

Fix the installation plate to the wall giving attention to the weight of the indoor unit.



📄 NOTE

- If you mount the plate to a concrete wall using plastic anchors, make sure that gaps between the wall and the plate, created by projected anchor, is less than 0.79 inch (20 mm).

When fixing the indoor unit on a window frame

- 1 Determine the positions of the wooden uprights to be attached to the window frame.
- 2 Attach the wooden uprights to the window frame giving attention to the weight of the indoor unit.
- 3 Attach the installation plate to the wooden upright using tapping screws.

When fixing the indoor unit on a gypsum board

- 1 Use stud finder to find out locations of the studs.
- 2 Fix the plate hanger on two studs.

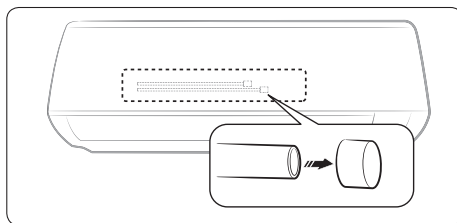
⚠ CAUTION

- If you fix the indoor unit on a gypsum board, use only specified anchor bolts on reference positions. Otherwise, the gypsum surrounding the joints may crumble over time and cause the screws to be loosened and stripped. This may lead to physical injury or equipment damage.
- Search for other spots if there are less than two studs, or the distance between the studs are different from the plate hanger.
- Fix the installation plate without inclining to one side.

Step 5 Purging the unit

Upon delivery, there may be inert gas inside the indoor unit. Purge the gas from the indoor unit before connecting the assembly pipe.

- Unscrew the caps at the end of each pipe. All inert gas exhausts from the indoor unit.



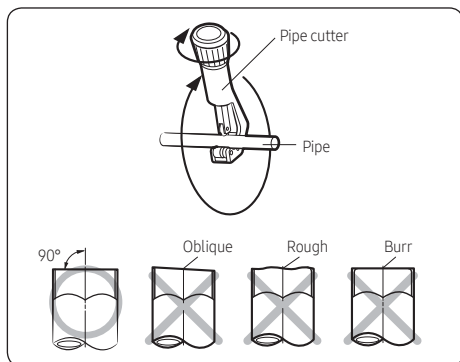
📄 NOTE

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

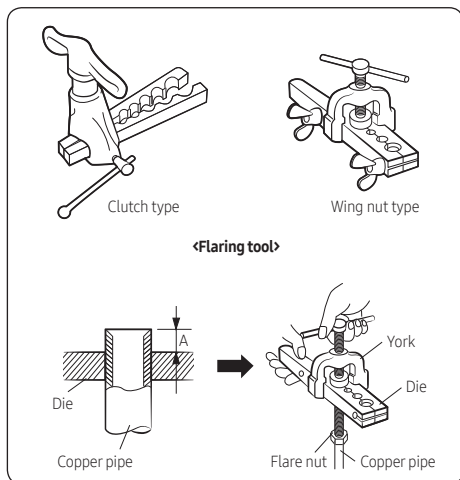
Installation Procedure

Step 6 Cutting or flaring the pipes

- 1 Make sure that you prepared the required tools.
(pipe cutter, reamer, flaring tool and pipe holder)
- 2 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.



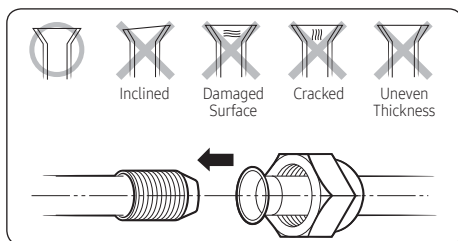
- 3 To prevent a gas leak, remove all burrs at the cut edge of the pipe using a reamer.
- 4 Carry out flaring work using flaring tool as shown below.



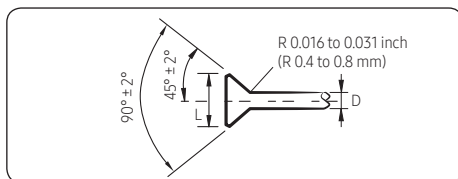
(Unit: inch (mm))

Outer diameter	A		
	Flare tool for R-410A clutch type	Conventional flare tool	
		Clutch type	Wing nut type
Ø1/4 (6.35)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø3/8 (9.52)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø1/2 (12.70)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø5/8 (15.88)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)

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



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



Outer diameter, D [inch (mm)]	Connection Torque		Flare dimension, L [inch (mm)]
	kgf•cm	[lbf•ft (N•m)]	
Ø1/4 (6.35)	140~180	10.3 to 13.3 (14 to 18)	0.34 to 0.36 (8.7 to 9.1)
Ø3/8 (9.52)	350~430	25.1 to 31.0 (34 to 42)	0.50 to 0.52 (12.8 to 13.2)
Ø1/2 (12.70)	500~620	36.1 to 45.0 (49 to 61)	0.64 to 0.65 (16.2 to 16.6)
Ø5/8 (15.88)	690~830	50.2 to 60.5 (68 to 82)	0.76 to 0.78 (19.3 to 19.7)

CAUTION

- In case of needing brazing, you must work with nitrogen gas blowing.

Step 7 Connecting the refrigerant pipe

Connect indoor and outdoor units with field-supplied copper pipes by means of flare connections. Use insulated seamless refrigeration grade pipe only, (Cu DHP type according to ISO1337), degreased and deoxidized, suitable for operating pressures of at least 4200 kPa and for burst pressure of at least 20700 kPa. Under no circumstances must sanitary type copper pipe be used.

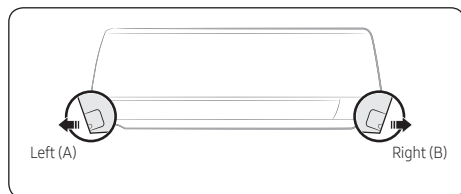
There are 2 refrigerant pipes of different diameters:

- The smaller one is for the liquid refrigerant
- The larger one is for the gas refrigerant

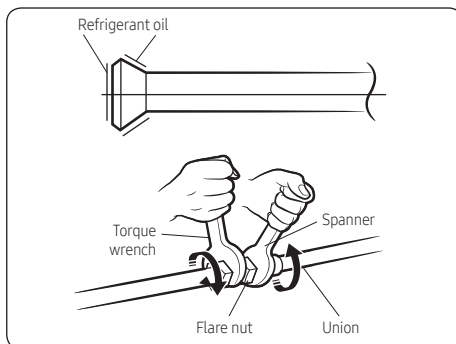
A short pipe is already fitted to the air conditioner. You may need to extend the pipe using the assembly pipe. (optional)

The connection procedure for the refrigerant pipe varies according to the exit position of the pipe when facing the wall:

- Left(A)
- Right(B)
- Rear



- 1 Cut out the appropriate knock-out piece on the rear of the indoor unit unless you connect the pipe directly from the rear.
- 2 Smooth the cut edges.
- 3 Remove the protection caps of the pipes and connect the assembly pipe to each pipe. Tighten the nuts first with your hands, and then with a torque wrench, applying the following torque:



Outer diameter [inch (mm)]	Torque [lbf•ft (N•m)]	Torque (kgf•cm)
Ø 1/4 (6.35)	10.3 to 13.3 (14 to 18)	140~180
Ø 3/8 (9.52)	25.1 to 31.0 (34 to 42)	350~430
Ø 1/2 (12.70)	36.1 to 45.0 (49 to 61)	500~620
Ø 5/8 (15.88)	50.2 to 60.5 (68 to 82)	690~830

NOTE

- If you want to shorten or extend pipes, refer to Step 6 Cutting or flaring the pipes.
- 4 Cut off the remaining foam insulation.
 - 5 If necessary, bend the pipe to fit along the bottom of the indoor unit. Then pull it out through the appropriate hole.
 - The pipe should not project from the rear of the indoor unit.
 - The bending radius should be 3.94 inch (100 mm) or more.
 - 6 Pass the pipe through the hole in the wall.
 - 7 For further details on how to connect to the outdoor unit and purge the air, refer to Step 4 Purging the unit.

NOTE

- The pipe will be insulated and fixed permanently into position after finishing the installation and the gas leak test; refer to page 10 for further details.
- DO NOT WALL UP THE PIPE CONNECTION!
All refrigerant pipe connection must be easy accessible and serviceable.

Installation Procedure

Step 8 Performing leak test

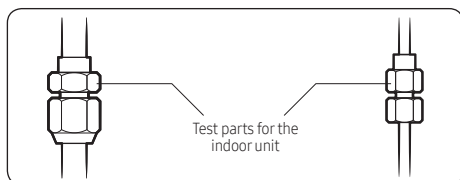
Leak test

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 responsible of installer to pressurize the whole system with nitrogen (using a pressure regulator) at a pressure above 4.1MPa (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.



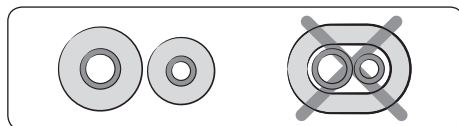
CAUTION

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

Step 9 Wrapping the pipes with the insulation

After checking for gas leaks in the system, insulate the pipe, hose and cables. Then place the indoor unit on the installation plate.

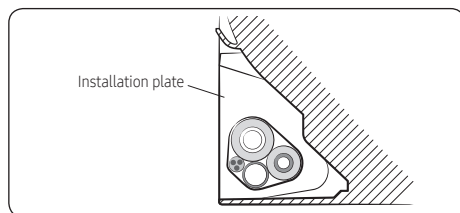
- 1 To avoid condensation problems, place heat-resistant polyethylene foam separately around each refrigerant pipe in the lower part of the indoor unit.



- 2 Wrap the refrigerant pipe and the drain hose in the rear of the indoor unit with the absorbent pad.

NOTE

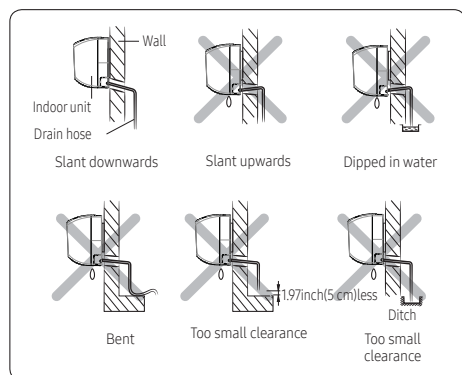
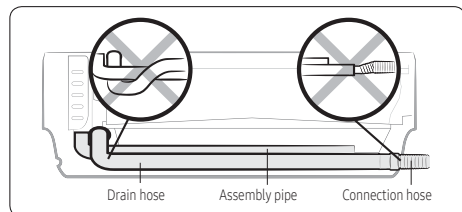
- Wind the pipe and hose three times to the end of the indoor unit with the absorbent pad. [0.79 inch (20 mm) interval]
- 3 Wind the pipe, assembly cable and drain hose with insulation tape.
 - 4 Place the bundle (the pipe, assembly cable and drain hose) in the lower part of the indoor unit carefully so it doesn't project from the rear of the indoor unit.



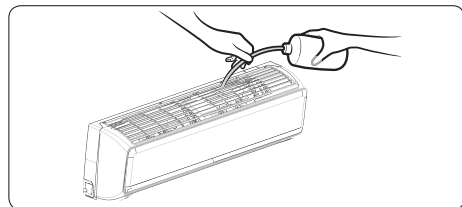
- 5 Hook the indoor unit to the installation plate and move the unit to the right and left until it is securely in place.
- 6 Wrap the rest of the pipe with vinyl tape.
- 7 Attach the pipe to the wall using clamps (optional).

Step 10 Installing and connecting the drain hose

- 1 Install the drain hose.

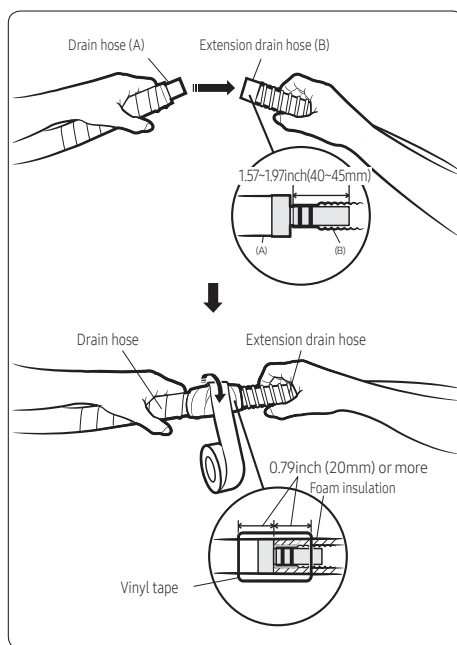


- 2 Pour water into the drain pan. Check whether the hose is well drained.



- Inadequate installation may cause water leakage.
- If the drain hose is routed inside the room, insulate the hose so that dripping condensation does not damage the furniture or floors.
- Do not box in or cover the drain hose connection. Drain hose connection must be easily accessible and serviceable.

Step 11 Optional: Extending the drain hose



⚠ CAUTION

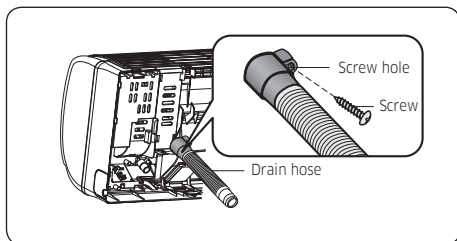
- Make sure that the indoor unit is in upright position when you pour water to check for leakage. Make sure that the water does not overflow onto the electrical part.
- If the diameter of the connection hose is smaller than the product's drain hose, water leakage may occur.

Installation Procedure

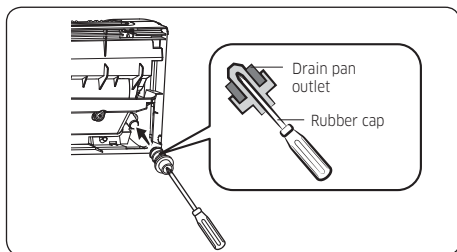
Step 12 Optional: Changing the direction of the drain hose

Change the direction only when it is necessary.

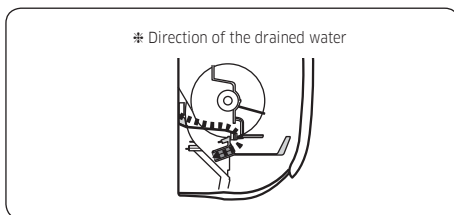
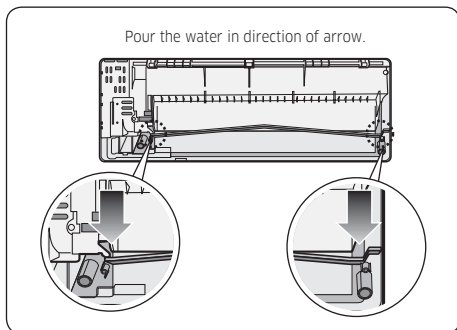
- 1 Detach the rubber cap with the flyer.



- 2 Detach the drain hose by pulling it and turning to the left.
- 3 Insert the drain hose by fixing it into the groove of the drain hose and the outlet of the drain pan.



- 4 Attach the rubber cap with a screwdriver by turning it to the right until it fixes to the end of the groove.
- 5 Check for leakage on both side of the drain outlet.



CAUTION

- Make sure that the indoor unit is in upright position when you pour water to check for leakage. Make sure that the water does not overflow onto the electrical part.

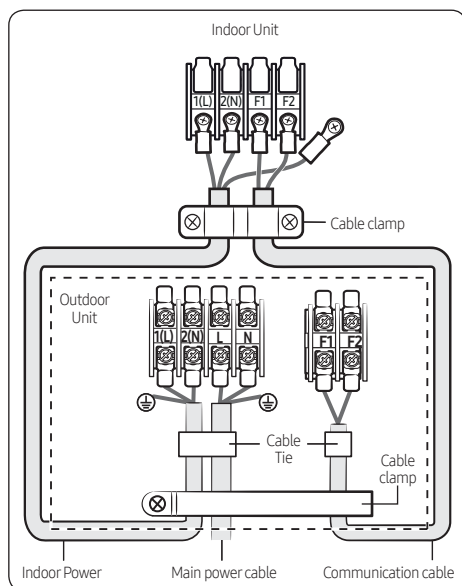
Step 13 Connecting the power and communication cables

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. Use a crimp ring terminal at the end of each wire.

The indoor unit is powered through the outdoor unit by means of a H05RN-F connection cable (or a more power model), with insulation in synthetic rubber and a jacket in polychloroprene (neoprene), in accordance with the requirements specified in the standard EN 60335-2-40.

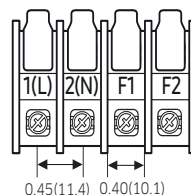
- 1 Remove the screw on the electrical component box and remove the cover plate.
- 2 Route the connection cord through the side of the indoor unit and connect the cable to the terminals refer to the figure below.
- 3 Route the other end of the cable to the outdoor unit through the ceiling & the hole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



Indoor power supply		
Power supply	Max/ Min(V)	Indoor power cable
208 to 230V, 60Hz	±10%	0.0012inch ² ↑(0.75mm ² ↑), 3 wires
Communication cable		
0.0012inch ² ↑(0.75mm ² ↑), 2 wires		

AC power, Communication : M4 screw

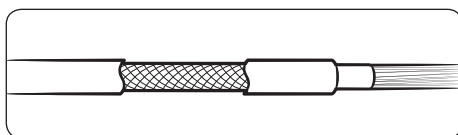
Unit: inch (mm)



	Tightening torque	
	N-m	lb.ft
M3.5	0.8 to 1.2	0.59 to 0.89
M4	1.2 to 1.8	0.89 to 1.1

(1N·m=10kgf·cm)

- 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)
- Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



CAUTION

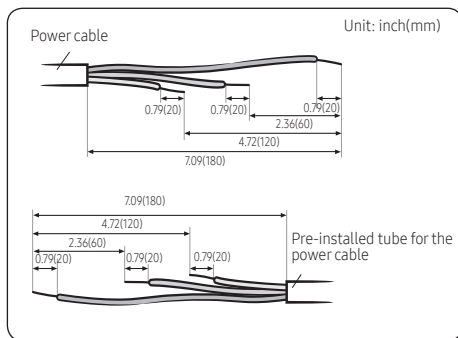
- When installing the indoor unit in a computer room or network room, use the double shielded communication cable (tape aluminum / polyester braid + copper) of FROHH2R type.

Installation Procedure

- 1 Prepare the following tools.

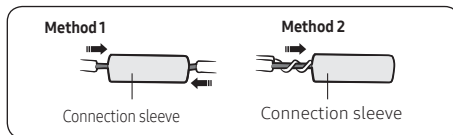
Tools	Spec	Shape
Crimping pliers	MH-14	
Connection sleeve	0.79xØ0.26inch (20xØ6.5mm) (HxØD)	
Insulation tape	Width 0.75inch(19mm)	
Contraction tube	2.76xØ0.31 inch (70xØ8.0mm) (LxØD)	

- 2 As shown in the figure, peel off the shields from the rubber and wire of the power cable.
 - Peel off 0.79 inch (20 mm) of cable shields from the pre-installed tube.



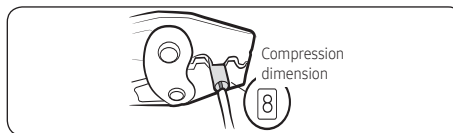
- For information about the power cable specifications for indoor and outdoor units, refer to the installation manual.
- After peeling off cable wires from the pre-installed tube, insert a contraction tube.

- 3 Insert both sides of core wire of the power cable into the connection sleeve.
 - **Method 1:** Push the core wire into the sleeve from both sides.
 - **Method 2:** Twist the wire cores together and push it into the sleeve.

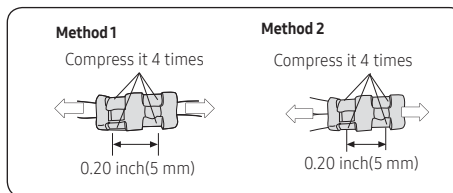


- If cable wires are connected without using connecting sleeves, their contact area becomes reduced, or corrosion develops on the outer surfaces of the wires (copper wires) over a long time. This may cause an increase of resistance (reduction of passing current) and consequently may result in a fire.

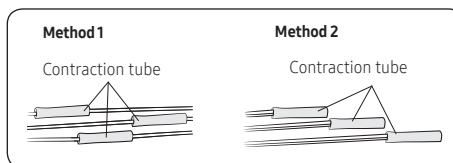
- 4 Using a crimping tool, compress the two points and flip it over and compress another two points in the same location.
 - The compression dimension should be 0.31 inch (8.0 mm).



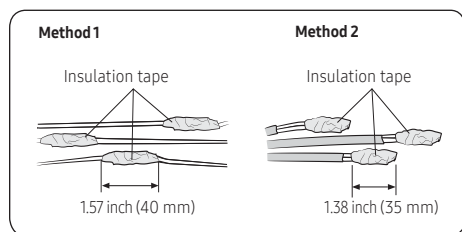
- After compressing it, pull both sides of the wire to make sure it is firmly pressed.



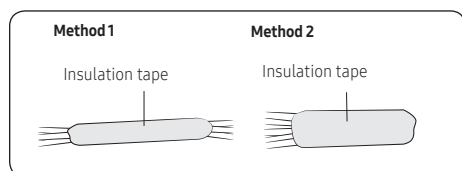
- 5 Apply heat to the contraction tube to contract it.



- 6 Wrap it with the insulation tape twice or more and position your contraction tube in the middle of the insulation tape. Three or more layers of insulation are required.



- 7 After tube contraction work is completed, wrap it with the insulation tape to finish.



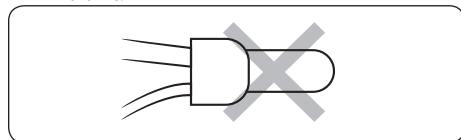
CAUTION

- Make sure that the connection parts are not exposed to outside.
- Be sure to use insulation tape and a contraction tube made of approved reinforced insulating materials that have the same level of withstand voltage with the power cable. (Comply with the local regulations on extensions.)



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.



Installation Procedure

Step 15 Optional : Setting the Emergency Temperature Output (ETO) function

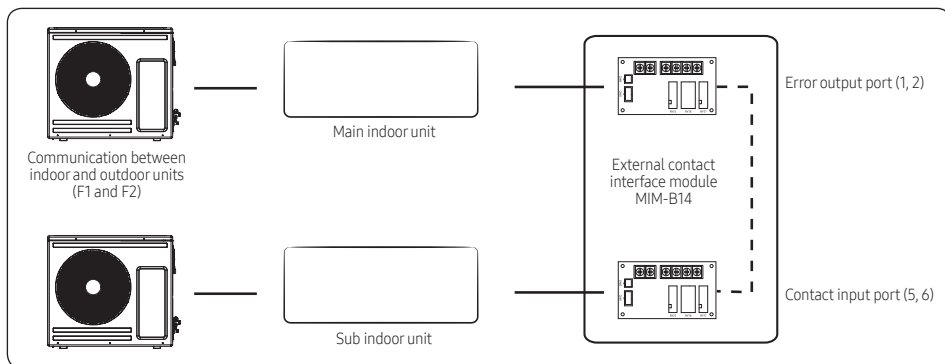
Emergency Temperature Output (ETO) function



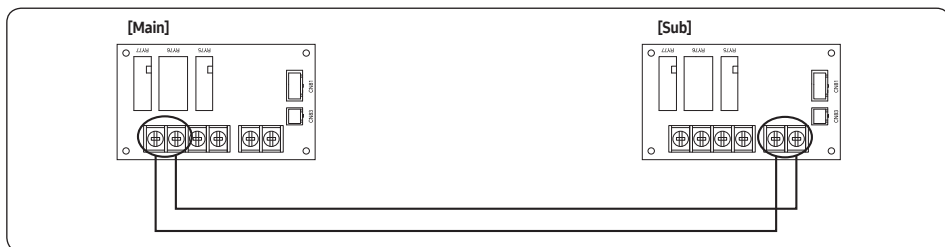
CAUTION

- In order to deploy the ETO function, the MIM-B14, an external contact interface module, must be installed in each indoor unit.
 - The ETO is a concept of emergency operation of indoor units. If the indoor unit 1 (main indoor unit) stops because of an error, the indoor unit 2 (sub indoor unit) starts to operate.
 - Basically, the indoor unit 2 operates in the previous mode. [For the first time operation, it starts in 75 °F (24 °C) Auto mode.]
 - To set more detailed operation conditions for the indoor unit 2, use the S-net Pro.

Setting up the ETO



- 1 Main indoor unit
 - Disable the external contact control (Default).
 - Connect the S-net pro2 to F1 and F2.
 - Enable the ETO function and set the temperature and time.
- 2 Sub indoor unit
 - (Required) Enable the external contact control (with the installation option SEG14 - Reverse Control).
 - Connect the S-net pro2 to F1 and F2.
 - Enable the entrance control and set the mode, set temperature, and fan speed.



ETO operation specifications

- 1 Main indoor unit
 - Based on the external contact control settings, the main indoor unit decides whether to generate output when an error (indoor unit stop) occurs.
 - Based on the ETO settings, the main indoor unit decides whether to generate output according to the temperature and time conditions.
- 2 Sub indoor unit
 - Based on the entrance control settings, the sub indoor unit decides the mode, set temperature, and fan speed when contact inputs are given.

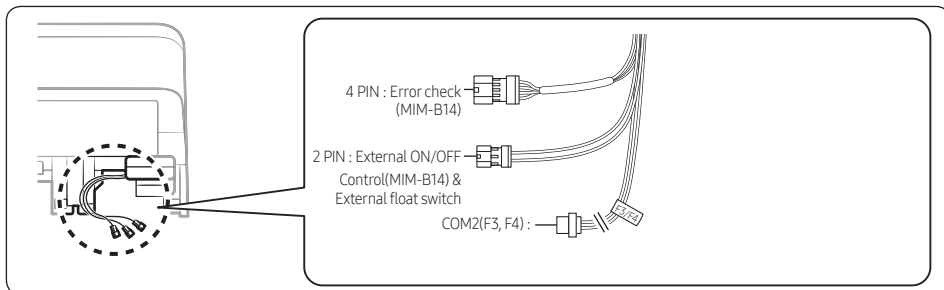
Main indoor unit	Enable of ETO	Enable of external contact	Error port output
	X	X	N/A
	X	O	Output due to an error
	O	X	Output by ETO entrance conditions (temperature / time / error occurrence)
	O	O	Output by ETO entrance conditions (temperature / time / error occurrence) ※ Ready to control the main contact input

Sub indoor unit	Enable of entrance control	Enable of external contact	Operation when outputting Main
	X	X	N/A
	X	O	On with the previous operation conditions
	O	O	On with the entrance control enabled

Installation Procedure

Step16 Optional : Connecting the External control (MIM-B14), Wired Remote Control and External Floating switch

After disassembling the cover panel, you can connect the wires from the indoor unit's display to the External control(MIM-B14) and wired remote control, External floating switch.



- External controller (MIM-B14) : Connect the wires of the external controller to 4PIN (Error check) and 2PIN (External On/Off). (Refer to the manual of MIM-B14.)
Next, set SEG15 for the Install option (02 mode). (See step 15 for details on how to set an option code.)
- Wired Remote control : Be sure to connect the wired remote control for installation after cutting the COM2(F3,F4) wire.
- Connecting the External Floating switch :
 1. Connect the external float switch to the 2PIN wire.
 2. If the connector types of the external float switch and 2PIN wire do not match, cut off the end of the 2PIN wire before connecting the wire to the external float switch.
 3. Set SEG8 for the Install option (02 mode) to '8'. (Refer to "Setting an indoor unit installation option")

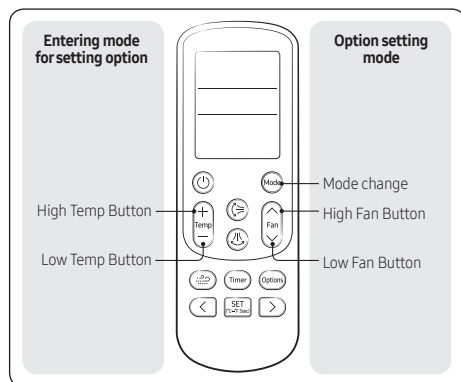
NOTE

- The External Floating switch is not sold separately by Samsung.
- External Control (MIM-B14) and External Floating switch cannot be connected simultaneously. Only either of them can be connected at a time.

Step 17 Setting the indoor unit addresses and the installation options

You cannot set both of the indoor unit addresses and the installation options in a batch: set both of them respectively.

Common steps for setting the addresses and options



- 2 Set the option values.

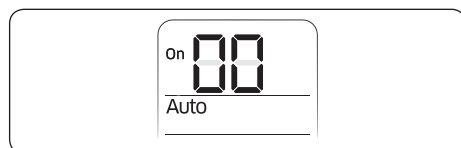
⚠ CAUTION

- The total number of available options are 24: SEG1 to SEG24.
- Because SEG1, SEG7, SEG13, and SEG19 are the page options used by the previous remote control models, the modes to set values for these options are skipped automatically.
- Set a 2-digit value for each option pair in the following order: SEG2 and SEG3 → SEG4 and SEG5 → SEG6 and SEG8 → SEG9 and SEG10 → SEG11 and SEG12 → SEG14 and SEG15 → SEG16 and SEG17 → SEG18 and SEG20 → SEG21 and SEG22 → SEG23 and SEG24

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

NOTE

- The remote control display and buttons may vary depending on the model.
- 1 Enter the mode for setting the options:
 - a Remove the batteries from the remote control, and then insert them again.
 - b While holding down the (High Temp) and (Low Temp) buttons simultaneously, insert the batteries into the remote control.
 - c Make sure that you are entered to the mode for setting the options:

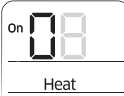
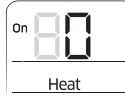
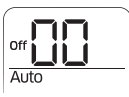
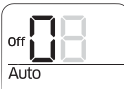
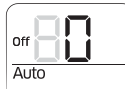
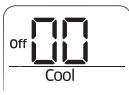
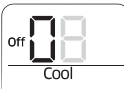
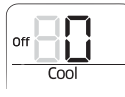
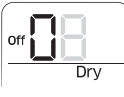
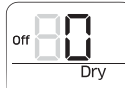
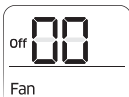


On (SEG1 to SEG12)	Off (SEG13 to SEG24)
On 00 Auto	Off 00 Auto

Installation Procedure

Take the steps presented in the following table:

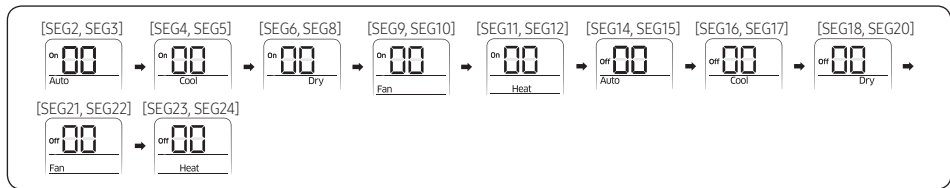
Option setting	Status
1 Setting SEG2, SEG3 option a Press Low Fan button  to enter SEG2 value. b Press High Fan button  to enter SEG3 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	On 08 Auto On 80 Auto SEG2SEG3
2 Setting Cool mode  Press Mode button to be changed to Cool mode in the ON status.	On 00 Cool
3 Setting SEG4, SEG5 option a Press Low Fan button  to enter SEG4 value. b Press High Fan button  to enter SEG5 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	On 08 Cool On 80 Cool SEG4SEG5
4 Setting Dry mode  Press Mode button to be changed to Dry mode in the ON status.	On 00 Dry
5 Setting SEG6, SEG8 option a Press Low Fan button  to enter SEG6 value. b Press High Fan button  to enter SEG8 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	On 08 Cool On 80 Cool SEG6SEG8
6 Setting Fan mode  Press Mode button to be changed to Fan mode in the ON status.	On 00 Fan
7 Setting SEG9, SEG10 option a Press Low Fan button  to enter SEG9 value. b Press High Fan button  to enter SEG10 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	On 08 Fan On 80 Fan SEG9SEG10
8 Setting Heat mode  Press Mode button to be changed to Heat mode in the ON status.	On 00 Heat

Option setting	Status
9 Setting SEG11, SEG12 option a Press Low Fan button  to enter SEG11 value. b Press High Fan button  to enter SEG12 value. Each time you press the button, 0 • 1 • ... E • F will be selected in rotation.	  SEG11 SEG12
10 Setting Auto mode  Press Mode button to be changed to Auto mode in the OFF status.	
11 Setting SEG14, SEG15 option a Press Low Fan button  to enter SEG14 value. b Press High Fan button  to enter SEG15 value. Each time you press the button, 0 • 1 • ... E • F will be selected in rotation.	  SEG14 SEG15
12 Setting Cool mode  Press Mode button to be changed to Cool mode in the OFF status.	
13 Setting SEG16, SEG17 option a Press Low Fan button  to enter SEG16 value. b Press High Fan button  to enter SEG17 value. Each time you press the button, 0 • 1 • ... E • F will be selected in rotation.	  SEG16 SEG17
14 Setting Dry mode  Press Mode button to be changed to Dry mode in the OFF status.	
15 Setting SEG18, SEG20 option a Press Low Fan button  to enter SEG18 value. b Press High Fan button  to enter SEG20 value. Each time you press the button, 0 • 1 • ... E • F will be selected in rotation.	  SEG18 SEG20
16 Setting Fan mode  Press Mode button to be changed to Fan mode in the OFF status.	

Installation Procedure

Option setting	Status
17 Setting SEG21, SEG22 option a Press Low Fan button  to enter SEG21 value. b Press High Fan button  to enter SEG22 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	off 08 Fan off 80 Fan SEG21 SEG22
18 Setting Heat mode  Press Mode button to be changed to Heat mode in the OFF status.	off 00 Heat
19 Setting SEG23, SEG24 option a Press Low Fan button  to enter SEG23 value. b Press High Fan button  to enter SEG24 value. Each time you press the button, 0 → 1 → ... → E → F will be selected in rotation.	off 08 Heat off 80 Heat SEG23 SEG24

3 Check whether the option values that you have set are correct by pressing the  button repeatedly.



- Save the option values into the indoor unit:
Press the  button with the direction of remote control for set. For correcting option values, input the option values twice.
- Check whether the air conditioner operates in accordance with the option values you have set:
 - Reset the indoor or outdoor unit.
 - Indoor unit : Press the  (Set) and  (Low Fan) buttons on the remote control simultaneously for 4 seconds.
 - Outdoor unit : Press the K3 button.
 - Remove the batteries from the remote control, insert them again, and then press the  button on the remote control.

Setting the indoor unit addresses

Option No. for an indoor unit address: 0AXXXX-1XXXXX-2XXXXX-3XXXXX

Before installing an indoor unit, be sure to set an address for the indoor unit by taking the following steps:

- 1 Make sure that the power is supplied to the indoor unit. If the indoor unit is not plugged in, it must include a power supply.
- 2 Set an address for each indoor unit using the remote control, according to your air conditioning system plan, by referring to the following table and by following the steps in Common steps for setting the addresses and options on page 19.
 - The indoor unit addresses (main and RMC addresses) are set to 0A0000-100000-200000-300000 by default.
 - If indoor units and outdoor units match 1:1, you don't need to set the main address because it is automatically set by the outdoor unit.
 - If you are using on or off controller, set RMC address.

Option	SEG1		SEG2		SEG3		SEG4	SEG5		SEG6	
Function	Page		Mode		Setting main address		Reserved	Indoor unit number		Indoor unit number	
Indication and details	Indication	Details	Indication	Details	Indication	Details		Indication	Details	Indication	Details
	0		A		0	No main address		0 to 1	Tens digit	0 to 9	Units digit
					1	Main address setting mode					
Option	SEG7		SEG8		SEG9		SEG10	SEG11		SEG12	
Function	Page		Reserved		Setting RMC address		Reserved	Group channel (x16)		Group address	
Indication and details	Indication	Details			Indication	Details		Indication	Details		
	1				0	No RMC address		RMC1	0 to 2	RMC2	0 to F
					1	RMC address setting mode					



CAUTION

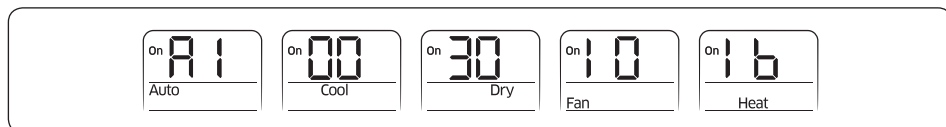
- The main address must be set to a value in the range 0 to 15. If you set other values, communication error will occur.
- If any of SEG5 and SEG6 is set to a value in the range A to F, the main address of the indoor unit does not change.
- If SEG3 is set to 0, the indoor unit maintains the existing main address even if SEG6 is set to a new value.
- If SEG9 is set 0, the indoor unit maintains the existing RMC address even if SEG11 and SEG12 are set to new values.

Installation Procedure

Example) If you want to set as "MAIN: 3, CHANNEL: 1, RMC: B",

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	A	1	-	-	3
SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	-	1	-	1	B

Assign option codes except SEG 1, 7 which are page options.



Setting the installation options in a batch

Installation option No. for an indoor unit address: 02XXXX-1XXXX-2XXXX-3XXXX

- 1 Make sure that the power is supplied to the indoor unit. If the indoor unit is not plugged in, it must include a power supply.
- 2 The panel(display) should be connected to an indoor unit to receive option.
- 3 Set the installation option according to the installation condition of an air conditioner.
 - The installation options of indoor units are set to 020010-100000-200000-300000 by default.
 - Individual control of a remote controller(SEG20) is the function that controls an indoor unit individually when there is more than one indoor unit.
 - If you set the applicable segments with numbers other than the indicated, the initial setting will be maintained.
- 4 Set the indoor unit option by wireless remote controller.

Option	SEG1		SEG2		SEG3	SEG4			SEG5		SEG6			
Function	Page		Mode		Reserved	Use of external room temperature sensor / Minimizing fan operation when thermostat is off 1)			Central control		Reserved			
Indication and details	Indication	Details	Indication	Details		Indication	Details		Indication	Details				
	0		2				Use of external room temperature sensor	Minimizing fan operation when thermostat is off	0	Disuse				
							0	Disuse				Disuse		
							1	Use				Disuse		
							2	Disuse				Use(Heating)		
							3	Use				Use(Heating)		
							4	Disuse				Use(Cooling)		
							5	Use	Use(Cooling)	1		Use		
							6	Disuse	Use (Cooling/Heating)					
							7	Use	Use (Cooling/Heating)					
							8	Disuse	Use (Cooling Ultra low speed)					
							9	Use	Use (Cooling Ultra low speed)					
							A	Disuse	Use (Heating/Cooling Ultra low speed)					
							B	Use	Use (Heating/Cooling Ultra low speed)					
Option	SEG7		SEG8		SEG9	SEG10	SEG11						SEG12	
Function	Page		Use of drain pump		Reserved	Reserved	Reserved			Reserved				
Indication and details	Indication	Details	Indication	Details										
	1		0	Disuse										
			8	Use external drain pump										

Installation Procedure

Option	SEG13		SEG14			SEG15		SEG16	SEG17		SEG18	
Function	Page		Use of external control		Setting the output of external control		Reserved	Buzzer control		Maximum filter usage time ²⁾		
Indication and details	Indication	Details	Indication	Details		Indication		Details	Indication	Details	Indication	Details
	2		0	Disuse	Sub, Existing control	0		Thermo on	0	Use of buzzer	2	1000 hours
			1	On/Off								
			2	Off								
			3	Window On/Off								
			4	Disuse	Main, Existing control	1		Operation On	1	Disuse of buzzer	6	2000 hours
			5	On/Off								
			6	Off								
			7	Window On/Off								
			8	Disuse	Sub, Reverse control							
			9	On/Off								
			A	Off								
			B	Window On/Off								
			C	Disuse	Main, Reverse control							
			D	On/Off								
			E	Off								
F			Window On/Off									
Option	SEG19		SEG20		SEG21		SEG22		SEG23		SEG24	
Function	Page		Individual control with remote control ³⁾		Heating setting compensation ⁴⁾		Reserved	Reserved		Reserved		
Indication and details	Indication	Details	Indication	Details		Indication						Details
	3		0,1	Indoor1	0	Default						
			2	Indoor2	1	3.6°F (2°C)						
			3	Indoor3	2	9°F (5°C)						
			4	Indoor4								

- 1) SEG4: By SEG4 setting, Minimizing fan operation when thermostat is off.
 - Fan operates for 20 seconds at an interval of 5 minutes in heat mode.
 - Fan stops or operates Ultra low in Cooling when thermostat is off.
- 2) SEG18: If you set the Maximum filter usage time option to a value other than 2 and 6, it is automatically set to 2 (1000 hours).
- 3) SEG20: If you set the Individual control with remote control option to a value other than 0 to 4, it is automatically set to 0 (Indoor1)
- 4) SEG21: Default value of Heating setting compensation is 9°F(5°C).

Changing the addresses and options individually

Example) If you want to set as "MAIN : 3, CHANNEL : 1, RMC : B",

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		The changed value	
Indication and Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
	0		D		Option mode	0~F	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 'Z'.

Example) 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	The changed value
Indication	0	D	2	1	7	1

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.

● On ○ Flickering ✕ Off

<u>Abnormal condition</u>	<u>Error code</u>	<u>LED Display</u>		
				
Error on indoor temperature sensor (Short or Open)	E121	✕	○	✕
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	✕	✕	○
1. Error on outdoor temperature sensor (Short or Open) 2. Error on cond sensor 3. 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 minute 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	●	○	○

Abnormal condition	Error code	LED Display		
				
1. COND mid sensor is detached	E241			
2. Refrigerant leakage (2nd detection)	E554			
3. Abnormally high temperature on Cond (2nd detection)	E450			
4. Low pressure s/w (2nd detection)	E451			
5. Abnormally high temperature on discharged air on outdoor unit (2nd detection)	E416			
6. Indoor operation stop due to unconfirmed error on outdoor unit	E559			
7. Error due to reverse phase detection	E425			
8. Comp stop due to freeze detection (6th detection)	E403			
9. High pressure sensor is detached	E301	●	◐	◐
10. Low pressure sensor is detached	E306			
11. Outdoor unit copression ration error	E428			
12. Outdoor sump down_1 prevetion control	E413			
13. Compressor down due to low pressure sensor prevention control_1	E410			
14. Simultaneous opening of cooling/heating MCU SOL valve (1st detection)	E180			
15. Simultaneous opening of cooling/heating MCU SOL valve (2nd detection)	E181			
16. External floating Switch error	E665			
Other outdoor unit self-diagnosis error that is not on the above list				
EEPROM error	E162	◐	◐	◐

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