# Air conditioner

# Installation manual

#### AC\*\*\*BN4PKG

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

# SAMSUNG

#### Safety Information Installation Procedure Step1 Checking and preparing accessories Step 2 Choosing the installation location Step 3 Optional: Insulating the body of the indoor unit Step 4 Installing the indoor unit Step 5 Purging inert gas from the indoor unit Step 6 Cutting and flaring the pipes Step 7 Connecting the assembly pipes to the refrigerant pipes Step 8 Performing the gas leak test Step 9 Insulating the refrigerant pipes Step 10 Installing the drain hose and drain pipe Step 11 Performing the drainage test Step 12 Connecting the power and communication cables Step 13 Optional: Extending the power cable Step 14 Setting the indoor unit addresses and the installation options Step 15 Optional: Installing DPM (Digital Packaged Multi) Step 16 Optional : Setting the Emergency Temperature Output (ETO) function Step 17 Optional : LED Display indicator specifications when checking Wi-Fi Easy Setup and Wi-Fi status (This feature can be used when installing single Wi-fi kit) Appendix

3

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9

10

10 11

11

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18

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31

31

Troubleshooting

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

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- 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.

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- 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.
- Do not use means to accelerate the defrost operation or to clean, other than those recommended by Samsung.
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.

#### 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.

# Safety Information

- 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.
- Do not install the product in a place where thermohygrostat is needed (such as server room, machinery room, computer room, etc.) Those places do not provide guaranteed operation condition of the product therefore performance can be poor in these places.
- Do not install the product in a ship or a vehicle (such as a campervan). Salt, vibration or other environmental factor may cause the product malfunction, electric shock or fire.
- 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

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- 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 13 Optional: Extending the power cable" in the installation manual.

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#### 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.

# Step 1 Checking and preparing accessories

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

Pattern sheet A (1) Pattern sheet B (1)	Drain hose (1)
Insultaion pipe (Liquid side1, gas side1)	Insultaion drain hose (1)
0	O
Installation manual (1)	User manual (1)
$\square$	$\square$
Cable-tie (6)	Clamp (1)
æ	
Installation gauge (1)	

# Step 2 Choosing the installation location

#### Installation location requirements

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit to 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 has proper drainage possibilities.
- The indoor unit must be installed such that it is beyond public access and is not touchable by users.
- A vibration-resistant location that is not inclined (If the indoor unit is installed on a structure that is not sturdy, it may fall and get damaged or cause injury.)
- Where it is not exposed to direct sunshine.
- Where the air filter can be removed and cleaned easily.
- A location where animals cannot access and urinate on the product. Ammonia may be generated.

## 

 Because your air conditioner contains R-32 refrigerant, make sure that it is installed, operated, and stored it in a room whose floor area is larger than the minimum required floor area specified in the following table:

m (kg)	Ceiling-mounted type (A, m <sup>2</sup> )
≤1.842	No requirement
1.843	3.64
1.9	3.75
2.0	3.95
2.2	4.34
2.4	4.74
2.6	5.13
2.8	5.53
3.0	5.92
3.2	6.48
3.4	7.32
3.6	8.20
3.8	9.14
4.0	10.1
4.2	11.2
4.4	12.3
4.6	13.4
4.8	14.6
5.0	15.8
5.2	17.1
5.4	18.6
5.6	20.0
5.8	21.5
6.0	23.0

#### - m : Total refrigerant charge in the system

- A : Minimum required floor area
- IMPORTANT: it's mandatory to consider either the table above or taking into consideration the local law regarding the minimum living space of the premises.
- Minimum installation height of indoor unit is 0.6 m for floor mounted, 1.8 m for wall, 2.2 m for ceiling.

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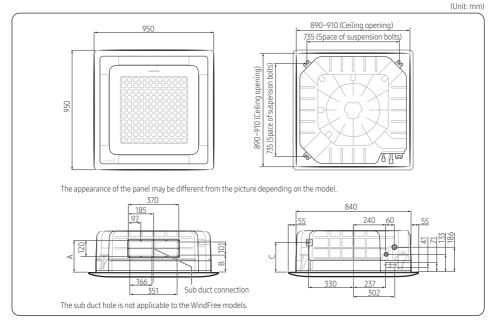
- As a rule, the unit cannot be installed at a height of less that 2.5m.
- If you install a cassette type indoor unit on the ceiling when temperature is over 27°C and humidity is over 80%, you must apply an extra 10mm thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.

# Do not install the air conditioner in following places.

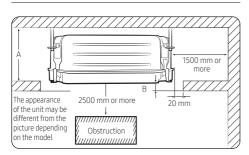
- Place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak. The capacity of the heat exchanger may reduce or the air conditioner may be out of order.
- A place with exposure to mineral oil, oil vapour or cooking area where there is spray (If oil adheres to the heat exchanger, performance degradation, spray or condensation scattering may occur. If oil adheres to a plastic component, the component may deform or get damaged. Such issues may result in a system failure or refrigerant leak.)
- A place with aromatic diffusers, aromatherapy, scented candles or perfumes as the chemicals may react to the product's materials and may result in system failure or refrigerant leaks.
- The place where corrosive gas such as sulphuric 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 fibre or flammable dust.
- The place where thinner or gasoline is handled. Gas may leak and it may cause fire.
- The place where is close to heat sources.
- 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.

#### Indoor unit dimensions

#### 4 way Cassette



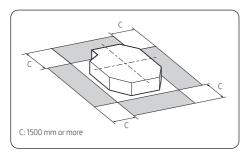
Model		AC052BN4PKG	AC052BN4PKG AC071BN4PKG AC100BN4PKG AC120BN4PKG AC140		AC140BN4PKG
Chassis		Small	Large		
A	mm	215	238		
В	mm	105	127		
С	mm	196	222		
Net dimension (W x D x H)	mm	840 x 840 x 204	204 840 x 840 x 288		
Liquid pipe connection	mm	6.35	9.52		
Gas pipe connection	mm	9.52	15.88		
Drain hose connection	mm	VP25 (OD32, ID26.5)			



#### Spacing requirements

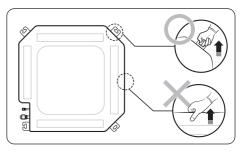
(Unit: mm)

М	odel	AC052BN4PKG	AC071BN4PKG	AC100BN4PKG	AC120BN4PKG	AC140BN4PKG
	A	251	335			
	В	17	17			



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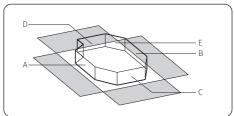
- Comply with the length and height limits described in the figure above.
- For the product that uses the R-32 refrigerant, Install the indoor unit on the wall 1.8 m or higher from the floor.
- The indoor unit must be installed according to the specified distances in order to permit accessibility from each side, to guarantee correct operation, maintenance, and repair of the unit. The components of the indoor unit must be reachable and removable under safe conditions for people and the unit.
- Do not carry the unit by holding the refrigerant or drain pipes to avoid product damage.
- Carry the unit by holding the hanger plates located on the corners of the unit.



# Step 3 Optional: Insulating the body of the indoor unit

If you install a cassette type indoor unit on the ceiling when temperature is over 27°C and humidity is over 80%, you must apply an extra 10 mm thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.

Cut away the part where pipes are pulled out for the insulating work.



Insulate the end of the pipe and some curved area by using separate insulator.



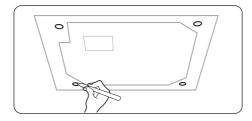
A: Reference for the outer circumference of the unit (When insulating the body of the indoor unit, use A as the reference for its outer circumference.)

					(U	Init: mm)
Chassis	Model	А	В	С	D	E
Small (840 x 204 x 840)	AC052BN4PKG	910 x 151	940 x 151	610 x 151	650 x 151	870 x 870
	AC071BN4PKG					
Large	AC100BN4PKG	010 275	940 x 235	/10 275	150 275	070 070
(840 x 288 x 840)	AC120BN4PKG	910 X 233	940 X 233	010 X 233	020 x 000	0/0 X 0/0
	AC140BN4PKG					

#### Step 4 Installing the indoor unit

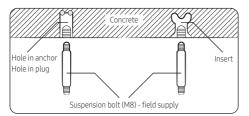
When deciding on the location of the air conditioner the following restrictions must be taken into account.

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

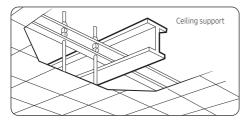


#### NOTE

- 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, be sure to 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.

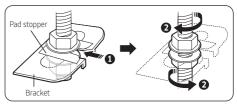


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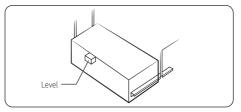
- Make sure that the ceiling is strong enough to support the weight of the indoor unit. Before hanging the unit, test the strength of each attached suspension bolt.
- If the length of the suspension bolt is more than 1.5 m, you are required to prevent vibration.
- 4 Screw eight pairs of nuts and washers to the suspension bolts, making space for hanging the indoor unit.

### 🕂 CAUTION

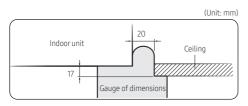
- You must install all of the suspension rods.
- It is important to leave sufficient space in the false ceiling to allow access for maintenance or repairs to the drainage pipe connection, the refrigerant pipe connection, or to remove the unit if necessary.
- 5 Hang the indoor unit to the suspension bolts between two nuts. Cut a pad stopper and place it on the suspension bolts to hold the washers. Remove the stopper and screw the nuts to fix the unit.



- 6 Check the level of the indoor unit by using a leveler.
  - A tilt of the indoor unit may cause malfunction of a built-in float switch and water leaks.



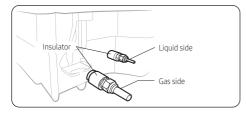
- 7 Adjust the unit to the appropriate position, taking into account the installation area for the front panel.
  - Place the pattern sheet on the indoor unit.
  - Adjust the space between the ceiling and the indoor unit by using a dimension gauge.
  - Fix the indoor unit securely after adjusting the level of the unit by using a leveller.
  - Remove the pattern sheet, connect the other cables. and install the front panel.



# Step 5 Purging inert gas from the indoor unit

The indoor unit comes with nitrogen gas (inert gas) charged at the factory. Therefore, all inert gas must be purged before connecting the assembly piping.

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

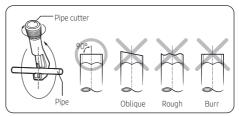


#### 🖹 NOTE

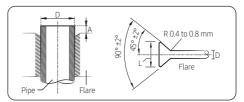
To prevent dirt or foreign objects from getting into the pipes during installation, do not remove the pinch pipe completely until you are ready to connect the piping.

### Step 6 Cutting and 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 them with a pipe cutter, ensuring that the cut edge remains at a 90° angle to the side of the pipe. Refer to the illustrations below for examples of edges cut correctly and incorrectly.

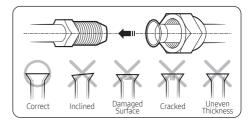


- 3 To prevent any gas from leaking out, remove all burrs at the cut edge of the pipe, using a reamer.
- 4 Slide a flare nut on to the pipe and modify the flare.



Outer Diameter (D)	Depth (A)	Flare dimension (L)
Ø6.35 mm	1.3 mm	8.7 to 9.1 mm
Ø9.52 mm	1.8 mm	12.8 to 13.2 mm
Ø12.70 mm	2.0 mm	16.2 to 16.6 mm
Ø15.88 mm	2.2 mm	19.3 to 19.7 mm
Ø19.05 mm	2.2 mm	23.6 to 24.0 mm

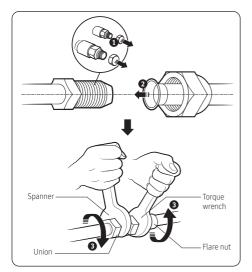
5 Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.



# Step 7 Connecting the assembly pipes to the refrigerant pipes

#### 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 and has no dust.
- 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 (mm)	Torque (N•m)
Ø6.35	14 to 18
Ø9.52	34 to 42
Ø12.70	49 to 61
Ø15.88	68 to 82
Ø19.05	100 to 120

<sup>(1</sup> N•m=10 kgf•cm)

#### NOTE

- If the pipes must be shortened, see Step 6 Cutting and flaring the pipes.
- 2 Be sure to use an insulator thick enough to cover the refrigerant tube to protect the condensate water on the outside of the pipe falling onto the floor and to improve the efficiency of the unit.

- 3 Cut off any excess foam insulation.
- 4 Make sure that there are no cracks or waves on the bent area.
- 5 It would be necessary to double the insulation thickness (10 mm 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 connecting the indoor and outdoor units. The only permitted connections are those for which the units are designed.

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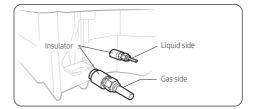
- Connect the indoor and outdoor units using pipes with flared connections (not supplied). For the lines, use insulated, unwelded, degreased and deoxidized copper pipe (Cu DHP type to ISO 1337 or UNI EN 12735-1), suitable for operating pressures of at least 4.2 MPa and for a burst pressure of at least 20.7 MPa. 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.
- If the pipes require brazing, make sure that oxygen free nitrogen (OFN) is flowing through the system.
- Nitrogen blowing pressure range is 0.02 to 0.05 MPa.

### Step 8 Performing the gas leak test

To identify potential gas leaks on the indoor unit, inspect the connection area of each refrigerant pipe using a leak detector for R-32.

Before recreating the vacuum and recirculating the refrigerant gas, pressurize the whole system with nitrogen (using a cylinder with a pressure reducer) at a pressure above 4 MPa in order to immediately detect leaks on the refrigerant fittings.

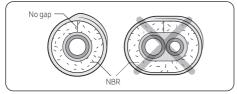
Made vacuum for 15 minutes and pressurizing system with nitrogen.



### Step 9 Insulating the refrigerant pipes

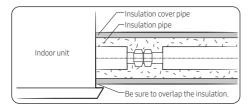
Once you have checked that there are no leaks in the system, you can insulate the piping and hose.

1 To avoid condensation problems, place Acrylonitrile Butadien Rubber separately around each refrigerant pipe.



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- Always make the seam of pipes face upwards.
- 2 Wind insulating tape around the pipes and drain hose avoiding compressing the insulation too much.



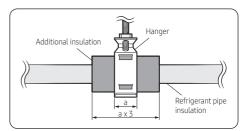
### A CAUTION

- Be sure to wrap insulation tightly without any gaps.
- **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.

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- Make sure that all refrigerant connection must be accessible for easy maintenance and detachment.
- Install the insulation not to get wider and use the adhesives on the connection part of it to prevent moisture from entering.
- Wind the refrigerant pipe with insulation tape if it is exposed to outside sunlight.
- Install the refrigerant pipe respecting that the insulation does not get thinner on the bent part or hanger of pipe.

• Add the additional insulation if the insulation plate gets thinner.



- 5 Select the insulation of the refrigerant pipe.
  - Insulate the gas side and liquid side pipe, noting the insulation thickness that must differ according to the pipe size.
  - Standard: Less than an indoor temperature of 30°C, with humidity at 85%. If installing in a high humidity environment, use one grade thicker insulator by referring to the table below. If installing in an unfavourable environment, use thicker one.
  - The heat-resistance temperature of the insulator must be more than 120°C.

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- Must fit tightly against body without any gap.
- All refrigerant connection must be accessible, in order to permit either unit maintenance or removal.

		Insulation type (heating/cooling)		
Pipe	Pipe size (mm)	Standard	High humidity	Remarks
	(11111)	(Less than 30°C, 85%)	(Over 30°C, 85%)	
		EPDM, N	BR (mm)	
Liquid	Ø6.35 to Ø9.52	9t	9t	
pipe	Ø12.7 to Ø19.05	13t	13t	The internal
	Ø6.35	13t	19t	temperature
	Ø9.52			is higher than 120°C
Gas pipe	Ø12.70	19t	25t	120 с.
p.pc	Ø15.88	171	2.51	
	Ø19.05			

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

#### <Geological condition>

High humidity locations such as shorelines, hot springs, lake or riversides, and ridges (when part of the building is covered by earth and sand)

#### Operation purpose condition>

Restaurant ceiling, sauna, swimming pool etc.

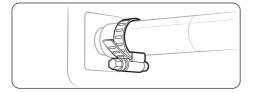
#### <Building construction condition>

Ceilings frequently exposed to moisture and cooling are not covered. For example, pipes installed at a corridor of a dormitory and studio or near an exit that opens and closes frequently.

Places (where the pipes are installed) that are highly humid due to a lack of ventilation.

# Step 10 Installing the drain hose and drain pipe

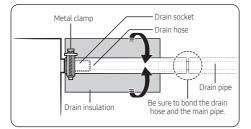
- 1 Push the supplied drain hose as far as possible over the drain socket.
- 2 Tighten the metal clamp as shown in the picture.

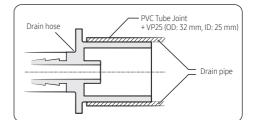


- **3** Wrap the supplied drain insulation over the metal clamp and drain hose to insulate and fix it with clamps.
- 4 Insulate the complete drain piping inside the building (field supply).

If the drain hose cannot be sufficiently set on a slope, fit the hose with drain raising piping (field supply).

5 Push the drain hose up to insulation when connecting the drain hose to drain socket.

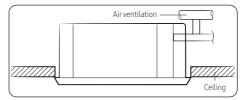




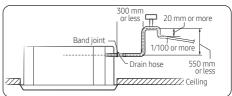
### A CAUTION

Check that the indoor unit is level with the ceiling by using the leveller.

• Install air ventilation to drain condensation smoothly.



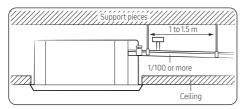
 If it is necessary to increase the height of the drain pipe, install the drain pipe straight within 300 mm from the drain hose port. If it is raised higher than 550 mm, there may be water leaks.



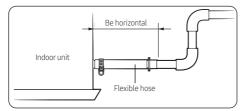
 Do not give the hose an upward gradient beyond the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.



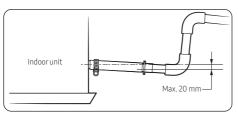
 Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.



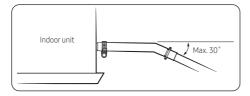
Install horizontally.



Max. allowable axis gap.

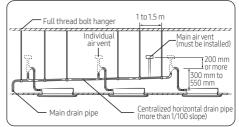


• Max. allowable bending angle.



#### NOTE

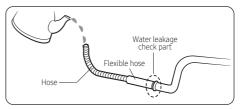
• If a concentrated drain pipe is installed, refer to the figure below.



- If 3 or more units are installed, install a main air vent in front of the farthest indoor unit from the main drain pipe.
- To prevent water from flowing back to indoor units, install an individual air vent at the top of each indoor unit.
  - The air vents should be T or 7 shaped to prevent dust or foreign substances from entering.
  - You may not need to install an air vent if the horizontal drain pipe has a proper slope.

### Step 11 Performing the drainage test

- 1 Do a leak test at the connection part of the flexible hose and the drain pipe:
  - a Connect a general hose to the connection part of the flexible hose of the indoor unit, and pour in some water.



- b After pouring some water, reassemble the rubber cap on the connection part of a flexible hose of the indoor unit and firmly tighten it with a band to prevent leakage.
- **c** Check the leak test at the part where the adhesive for the flexible hose and the drain pipe is used.

# 

• The leak test must be performed for at least 24 hours.

**q** When the drainage check is completed and the condensed water remains on the drain pan, remove

#### Step 12 Connecting the power and communication cables

f When leakage occurs, check whether the indoor unit is level and check the drain hose connection

part, drainpipe connection part and drain pump

# CAUTION

connection.

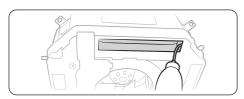
the water.

- 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.
- For the product that uses the R-32 refrigerant, be cautious not to generate a spark by keeping the following requirements:
  - Do not remove the fuses with power on.
  - Do not disconnect the power plug from the wall outlet with power on.
  - It is recommended to locate the outlet in a high position. Place the cords so that they are not tangled.
- 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 H07 RN-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.

- Remove the screw on the electrical component box and 1 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.

- 2 Check the condensed water drainage:
  - Pour about 2 liters of water into the indoor unit а drain pan as shown in the picture.



- When the electric cable connection is completed h
- Turn on the indoor unit and outdoor unit.
- Operate in the Cool mode.

### CAUTION

Only in the Cool mode, you can check the correct operation of the drain pump.

When the electric cable connection has not been completed

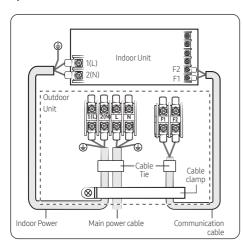
- Remove the control box cover of the indoor unit.
- Connect the power supply (220~240V, 50 Hz) to the L and N terminals.
- Reassemble the control box cover and turn on the indoor unit.

# CAUTION

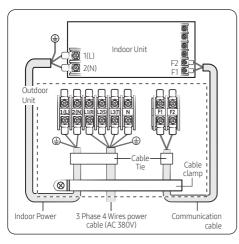
- When the float switch is not detected due to insufficient water on the drain pan, the drain pump will not work.
- If the power supply is directly connected to the L and N terminals, communication error message might appear.
- After completing the drainage check, turn the unit off and disconnect the power supply.
- Reassemble the control box cover.
- c Check whether the drain pump works correctly.
- **d** Check whether the drainage is performing correctly at the end of the drain pipe.
- e Check for leakage at the drain pipe and drain pipe connection part.

# **Installation Procedure**

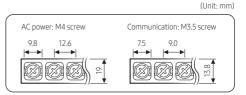
1 phase



#### 3 phase



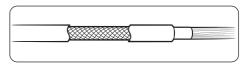
Indoor power supply			
Power supply Max/Min(V) Indoor power cable			
±10%	0.75 mm² ↑, 3 wires		
Communication cable			
0.75 mm <sup>2</sup> , 2 wires			
	Max/Min(V) ±10% Communication cable		



Tightening torque (kgf • cm)			
M3.5 8.0 to 12.0			
M4	12.0 to 18.0		

1 N·m = 10 kgf·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 or IEC:60245 IEC 66 / CENELEC: H07RN-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 or LiYCY type.

# Step 13 Optional: Extending the power cable

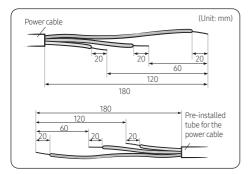
1 Prepare the following tools.

Tools	Spec	Shape
Crimping pliers	MH-14	
Connection sleeve (mm)	20xØ6.5 (HxOD)	
Insulation tape	Width 19 mm	
Contraction tube (mm)	70xØ8.0 (LxOD)	

Installation Procedure

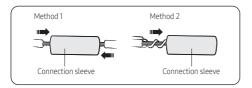
16 English

- 2 As shown in the figure, peel off the shields from the rubber and wire of the power cable.
  - Peel off 20 mm of cable shields from the preinstalled tube.



## 

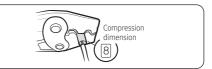
- For information about the power cable specifications for indoor and outdoor units, refer to the installation manual.
- After peeling off cable wires from the pre-installed tube, insert a contraction tube.
- **3** Insert both sides of core wire of the power cable into the connection sleeve.
  - Method 1: Push the core wire into the sleeve from both sides.
  - Method 2: Twist the wire cores together and push it into the sleeve.



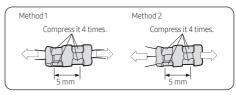
# 

 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.

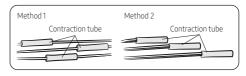
- 4 Using a crimping tool, compress the two points and flip it over and compress another two points in the same location.
  - The compression dimension should be 8.0.



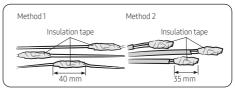
• After compressing it, pull both sides of the wire to make sure it is firmly pressed.



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.



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

Three or more layers of insulation are required.

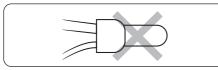
Method 1		Method 2
	IInsulation tape	IInsulation tape
X		

# 

- 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.)

## 

- 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.

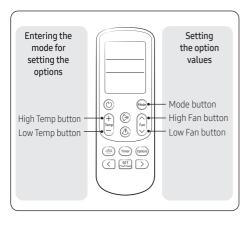


# Step 14 Setting the indoor unit addresses and the installation options

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

#### Remote controls



#### 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 from (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:



2 Set the option values.

### 🕂 WARNING

- 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	Х	Х	Х	Х	Х
SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	Х	Х	Х	Х	Х
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	Х	Х	Х	Х	Х
SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	Х	Х	Х	Х	Х

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

Take the steps presented in the following table:

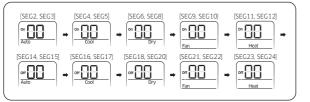
	Steps	Remote control display
1	<ul> <li>Set the SEG2 and SEG3 values:</li> <li>a Set the SEG2 value by pressing the (☉) (Low Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	On Auto SEG2
	<ul> <li>b Set the SEG3 value by pressing the  A limit (High Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	on Auto
	When you press the 🔄 (Low Fan) or 🎧 (High Fan) button, values appear in the following order: 🛛 + 🗄 + … E → E	SEG3
2	Press the 😁 (Mode) button. Cool and On appear on the remote control display.	on Cool
3	Set the SEG4 and SEG5 values: <b>a</b> Set the SEG4 value by pressing the State (Low Fan) button repeatedly until the value you want to set appears on the remote control display.	On Cool SEG4
	<ul> <li>b Set the SEG5 value by pressing the An (High Fan) button repeatedly until the value you want to set appears on the remote control display.</li> <li>When you press the An (Table) (Low Fan) or An (Table) (High Fan) button, values appear in the following under R and R and</li></ul>	on Cool SEG5
4	order: $3 \bullet 3 \bullet \cdots \mathbf{E} \bullet \mathbf{E}$ Press the $\bigcirc$ (Mode) button. <b>Dry</b> and <b>On</b> appear on the remote control display.	On Dry
5	<ul> <li>Set the SEG6 and SEG8 values:</li> <li>a Set the SEG6 value by pressing the (♥) (Low Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	On Dry Dry SEG6
	b Set the SEG8 value by pressing the A (High Fan) button repeatedly until the value you want to set appears on the remote control display.	On Dry
	When you press the 🔄 (Low Fan) or 🎧 (High Fan) button, values appear in the following order: 🛾 + 🗄 + … E → E	SEG8
6	Press the 😡 (Mode) button. Fan and On appear on the remote control display.	on

	Steps	Remote control display
7	Set the SEG9 and SEG10 values: a Set the SEG9 value by pressing the 💭 (Low Fan) button repeatedly until the value you want to set appears on the remote control display.	On Fan
	b Set the SEG10 value by pressing the Arrow (High Fan) button repeatedly until the value you want to set appears on the remote control display.	0n
	When you press the 🔯 (Low Fan) or 🎧 (High Fan) button, values appear in the following order: 🛛 + 🗄 + … Ε + Ε	Fan SEG10
8	Press the 🗃 (Mode) button. <b>Heat</b> and <b>On</b> appear on the remote control display.	on Heat
9	<ul> <li>Set the SEG11 and SEG12 values:</li> <li>a Set the SEG11 value by pressing the <sup>™</sup> (Low Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	On Heat Heat
	<ul> <li>b Set the SEG12 value by pressing the  A (High Fan) button repeatedly until the value you want to set appears on the remote control display.</li> <li>When you press the  A (Migh Fan) or  A (High Fan) button, values appear in the following value appear in the</li></ul>	on Heat
10	order: $[] \rightarrow [] \rightarrow \dots \in E \rightarrow E$ Press the $\bigcirc$ (Mode) button. Auto and Off appear on the remote control display.	off
11	<ul> <li>Set the SEG14 and SEG15 values:</li> <li>a Set the SEG14 value by pressing the <sup>™</sup> (Low Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	On Heat Heat SEG14
	<ul> <li>b Set the SEG15 value by pressing the  A (High Fan) button repeatedly until the value you want to set appears on the remote control display.</li> <li>When you press the  → (Low Fan) or  A (High Fan) button, values appear in the following</li> </ul>	on Heat
	order: 0 + 0 + E + E	SEG15
12	Press the 😡 (Mode) button. <b>Cool</b> and <b>Off</b> appear on the remote control display.	Off Cool

		Steps	Remote control display
13	<b>a</b> Set th	EG16 and SEG17 values: The SEG16 value by pressing the 🔭 (Low Fan) button repeatedly until the value Pant to set appears on the remote control display.	Cool SEG16
	you w	The SEG17 value by pressing the $\bigcap_{rest}$ (High Fan) button repeatedly until the value rant to set appears on the remote control display.	Off Cool
	When you order: 🛛 🗕	press the $\mathbb{F}_{a}^{sy}$ (Low Fan) or $\bigcap_{k=1}^{s}$ (High Fan) button, values appear in the following $\mathbb{H}$ + … $\mathbb{E}$ + $\mathbb{E}$	SEG17
14	Press the	(Mode) button. Dry and Off appear on the remote control display.	Off Dry
15	<b>a</b> Set th	EG18 and SEG20 values: e SEG18 value by pressing the 🔭 (Low Fan) button repeatedly until the value ant to set appears on the remote control display.	Orf Dry Dry SEG18
	you w When you	The SEG20 value by pressing the $\bigcap_{Rm}$ (High Fan) button repeatedly until the value vant to set appears on the remote control display. In press the $\bigcup_{Rm}$ (Low Fan) or $\bigcap_{Rm}$ (High Fan) button, values appear in the following $\mathbb{H} \bullet \cdots \mathbb{H} \bullet \mathbb{H}$	Cool SEG20
16		<ul> <li>○ • • • E • E</li> <li>(Mode) button. Fan and Off appear on the remote control display.</li> </ul>	off TT
17	<b>a</b> Set th	G21 and SEG22 values: le SEG21 value by pressing the 🔭 (Low Fan) button repeatedly until the value rant to set appears on the remote control display.	orf Fan
	you w	e SEG22 value by pressing the 🎧 (High Fan) button repeatedly until the value rant to set appears on the remote control display. Press the 🔄 (Low Fan) or 🍙 (High Fan) button, values appear in the following	off Fan
	order: 🛛 🗕	B + ···E + E	SEG22
18	Press the	(Mode) button. Heat and Off appear on the remote control display.	Off Heat

	Steps	Remote control display
19	<ul> <li>Set the SEG23 and SEG24 values:</li> <li>a Set the SEG23 value by pressing the (Low Fan) button repeatedly until the value you want to set appears on the remote control display.</li> </ul>	Orf Heat Heat SEG23
	<b>b</b> Set the SEG24 value by pressing the $\bigcap_{\text{Fact}}$ (High Fan) button repeatedly until the value you want to set appears on the remote control display.	Off
	When you press the 🔯 (Low Fan) or 🍙 (High Fan) button, values appear in the following order: 🛾 + 🗄 + … E → E	Heat SEG24

3 Check whether the option values that you have set are correct by pressing the 🝚 (Mode) button repeatedly



4 Save the option values into the indoor unit:

Point the remote control to the remote control sensor on the indoor unit and then press the ③ (Power) button on the remote control twice. Make sure that this command is received by the indoor unit. When it is successfully received, you can hear a short sound from the indoor unit. If the command is not received, press the ③ (Power) button again.

5 Check whether the air conditioner operates in accordance with the option values you have set:

- **a** 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.
- **b** Remove the batteries from the remote control, insert them again, and then press the (③) (Power) button on the remote control.

Installation Procedure

#### 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:

 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 **18**.
  - 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.

Option	SEC	51	SEG2			SEG3	SEG4	SEG5		SEG6	
Function	Pag	Page Mode		Setting	Setting main address		Indoor unit number		Indoor unit number		
	Indication	Details	Indication	Details	Indication	Details		Indication	Details	Indication	Details
Indication					0	No main address	Reserved				11-24-
and details	0		ļ A	А		Main address setting mode		0 to 1	Tens digit	0 to 9	Units digit
Option	SEC	57	SE	SEG8		SEG9		SEG11		SEG12	
Function	Pag	je				Setting RMC address		Group channel (x16)		Group address	
	Indication	Details	Reserved		Indication	Details		Indication	Details	Indication	Details
Indication							Reserved				
Indication			Rese	rved	0	No RMC address	Reserved				

• If you are using on or off controller, set RMC address.

# 

- 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.

#### Setting the installation options in a batch

#### Option No. for an indoor unit address: 02XXXX-1XXXXX-2XXXXX-3XXXXX

 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 the installation options of indoor units, by referring to the following table and by following the steps in Common steps for setting the addresses and options on page 18.
  - The installation options of indoor units are set to 020010-100001-200000-300000 by default.
  - The SEG20 option, Individual control with remote control, allows you to control multiple indoor units individually by using the remote control.

Option	SE	G1	SE	G2	SEG3		SEG	4	SE	G5	SE	G6
Function	Pa	ge	Ма	de		Use of ext	ternal room temperat operation when the	ture sensor / Minimizing fan ermostat is off <sup>1)</sup>	Use of con	central trol	Compens the far	
	Indication	Details	Indication	Details				Details	Indication	Details	Indication	Details
						Indication	Use of external room temperature sensor	Minimizing fan operation when thermostat is off	0	Disuse	0	Disuse
						0	Disuse	Disuse				
						1	Use	Disuse	1			
						2	Disuse	Use (Heating)	1			
Indication						3	Use	Use (Heating)	1			
and					Reserved	4	Disuse	Use (Cooling)	1			
details	C	0		2		5	Use	Use (Cooling)	1			
UELDILS						6	Disuse	Use (Cooling/Heating)	1	Use	1	Use
						7	Use	Use (Cooling/Heating)	1			
						8	Disuse	Use (Cooling Ultra low speed)	1			
						9	Use	Use (Cooling Ultra low speed)	1			
						А	Disuse	Use (Heating/ Cooling Ultra low speed)				
						В	Use	Use (Heating/ Cooling Ultra low speed)				
Option	SE	G7	SE	G8	SEG9		SEG	10	SEG11		SEG12	
Function	Pa	ge	Use of purr						Wind Fan F	IFree PM <sup>3)</sup>	Dew re operat WindFre	tion in
	Indication	Details	Indication	Details	1				Indication	Details	Indication	Details
					1				0	Default		Maintain
			0	Disuse					1	1 STEP↓	0	blade status in
Indication					Reserved		Reser	ved	2	2 STEP↓		WindFree
and			1	Use				3	3 STEP↓		mode	
details	1			USE					4	4 STEP↓		(Default)
		-		Use with 3-min delay							1	Cooling operation by opening the blade

Option	SEG13				SEG14		SE	G15	SEG16		SEC	G17	SE	G18	
Function	Page		Us	se of e	external con	trol 4)		e output of I control		Bu	ızzer	control		um filter e time <sup>5)</sup>	
	Indication Det	ails Ind	dication		Detail	S	Indication	Details		Indica	tion	Details	Indication	Details	
			0		Disuse										
			1		On/Off	Sub, Existing									
		-	2		Off	control									
		-	3		dow On/Off		0	Thermo On		0		Disuse	2	1000 hrs	
		-	4 5		Disuse On/Off	Main,		OII							
Indication			6		Off	Existing			Reserved						
and			7	Wind	dow On/Off	control			Reserved						
details	2		8		Disuse										
			9		On/Off	Sub, Reverse									
			А		Off	control									
			В		dow On/Off		- 1	Operation On		1		Use	6	2000 hrs	
			С		Disuse	Main,		operation on				050	0	2000 1113	
			D		On/Off	Reverse									
			E F	Wind	Off dow On/Off	control									
Option	SEG19		<u>   </u>	SEG		SEG	21	SEG22		SEG23			SEG24		
	Page			ividua	l control emote	Heating	setting		Setting the MDS kit installation				tion		
Function	ruge			conti		compens	ation //			(	optio	n <sup>8)</sup>			
	Indication Details		Indica	ation	Details	Indication	Details		Indicati	on		Details			
									0		(So	Disuse oft Off + Ha			
											1		Off after 20 oft Off + Ha		
			0 0	r1	I Indoor1	0	Default		Standard	1 2	(	Off after 40 oft Off + Ha	min		
										3	(	Off after 80 oft Off + Ha	min		
										4	(	Off after 20 oft Off + Ha	min		
			2		Indoor 2			Reserved	Premium	1 5	(	Off after 40 oft Off + Ha	min	Reserved	
Indication and	3					1	2 °C			6	(	Off after 80 oft Off + Ha	min		
details										7	(	Off after 20 (Soft Off or	min		
			3		Indoor 3				Standard	8	(	Off after 40 (Soft Off or	min		
										9	(	Off after 80 (Soft Off or	min		
						2	5 ℃			А		Off after 20 (Soft Off or			
			4	Indoor 4				Premium	в		Off after 40 (Soft Off or				
										С		Off after 80 (Soft Off or			

#### • 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) SEG8

Even if you set the Use of drain pump option to 0, it is automatically set to 2 (the drain pump is used with 3 minute delay).

#### • 3) SEG11

Compensation of the WindFree fan RPM option adjusts 20 rpm per1 step.

• 4) SEG14

Example: When installing DPM (1 Outdoor unit with 4 indoor units)

Cond	lition		SEG14	Setting		Result	
External control	Level control	Indoor1	Indoor 2	Indoor 3	Indoor 4	Result	
Def	ault		Slave (All)				
Disuse	Disuse Use		Not set (0)	Not set (0)	Not set (0)	Master (Indoor1), Slave (Indoor 2,3,4)	
Use (Indoor 3)	Disuse	Not set (0)	Not set (0)	1~3	Not set (0)	Slave (All)	
Use (Indoor 4)	Use (Indoor 4) Use		Not set (0)	Not set (0)	5~7	Master (Indoor 4), Slave (Indoor 1,2,3)	

#### • 5) 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).

#### • 6) 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)

#### • 7) SEG21

Default value of Heating setting compensation is 5°C.

#### • 8) SEG23

Soft Off: The indoor unit turns off its operation at the indicated time in the table for Installation Option after its final motion detection. But, it turns on again if the MDS detects motion.

Hard Off: Designated time after SOFT OFF, it cannot turn on automatically when it detects motion. Users should control to turn on the indoor unit with remote control, etc.

#### Changing the addresses and options individually

When you want to change the value of a specific option, refer to the following table and follow the steps in **Common steps for setting the addresses and options** on page **18**.

Option	SEG1		SEG2		SEG3		SEG4		SEG5		SEG6	
Function	Page		Mc	ıde	Option mode to change		Tens position of the option number		Units position of the option number		New value	
Indication and details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
	0		E	)	Option type	0 to F	Tens position value	0 to 9	Units position value	0 to 9	New value	0 to F

Example: Changing the Buzzer control (SEG17) option of the installation options to 1 disuse.

Option	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
Function	Page	Mode	Option mode to change	Tens position of the option number	Units position of the option number	New value
Indication	0	D	2	1	7	1

### Step 15 Optional: Installing DPM (Digital Packaged Multi)

### NOTE

To find DPM allowable indoor unit models according to outdoor unit models, refer to outdoor installation manual. Only AC052/071BN4PKG models are available to install DPM.

- When installing DPM, you should set "DPM setting" to the outdoor unit.
- You do not need to set the address manually for the indoor unit.
- If DPM model is not set, communication error may occur.
- While the outdoor unit is tracking the indoor unit for one minute after the power supply is turned on, the operation may stop if the remote control reception signal of the installed indoor unit is different.
- To enable Level contol with the centralized controller, refer to page 25~26.

# 

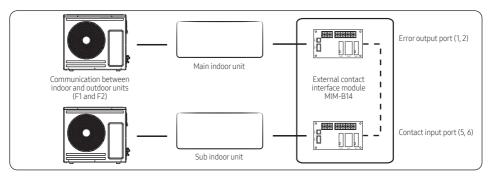
• When installing DPM, only one external controller can be connected.

### Step 16 Optional : Setting the Emergency Temperature Output (ETO) function

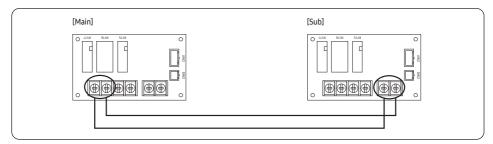
## 

- 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 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

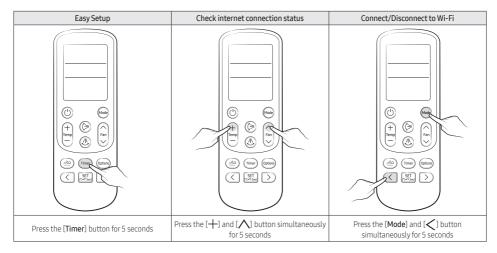
- 1 Main indoor unit
  - Based on the external contact control settings, the main indoor unit decides whether to generate output when an
    error (indoor unit stop) occurs.
  - Based on the ETO settings, the main indoor unit decides whether to generate output according to the temperature and time conditions.
- 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	
	Х	Х	N/A	
	Х	0	Output due to an error	
			Output by ETO entrance conditions (temperature / time / error occurrence)	
	0	0	Output by ETO entrance conditions (temperature / time / error occurrence)	
			* Ready to control the main contact input	

	Enable of entrance control	Enable of external contact	Operation when outputting Main		
Sub indoor unit	Х	Х	N/A		
	Х	0	On with the previous operation conditions		
	0	0	On with the entrance control enabled		

# Step 17 Optional : LED Display indicator specifications when checking Wi-Fi Easy Setup and Wi-Fi status (This feature can be used when installing single Wi-fi kit)

The AR-EH04U wireless remote controller can be used for Easy Setup, checking internet connection status and connecting or disconnecting Wi-Fi.



#### **LED Indicator Status**

4way Cassette		LED Display					
		Operation	Defrost	Timer	Filter Cleaning	Remarks	Measure
		Ċ	*	Ü	Ē		
	AP entry	•				All LED lights are on	-
Easy Setup	Check device	•	•		•	All LED lights flash	
	Registering devices	•	•	•	•	All LED lights flash one after another	
	Connected	•	0		•	All LED lights flash for 3 seconds	
	Connection failed	Х	Х	х	х	All LED lights turn off, and the system operates in the previous mode	AP settings, change Wi-Fi module
Check internet connection status	If AP/internet is connected successfully	•	•	•	•	All LED lights turns on for 5 seconds	Normal operation
	If no AP connection	х	Х	х	х	All LED turns off for 5 seconds	AP settings, change Wi-Fi module
Wi-Fi	If connected		•	•	•	All LED lights flashes once	-
	If not connected					All LED lights flashes once	-
	ip using the wired e controller	•	0	•	•	All LED lights flashes simultaneously (max. 5 mins)	-

### Troubleshooting

	LED lamp display				
Abnormal conditions	Operation	Defrost	Timer	Filter	– Remarks
	Ċ	8	Ċ		
Power reset	•	Х	Х	Х	
Error of temperature sensor in the indoor unit (Open/ Short)	Х	•	Х	X	
Error of heat exchanger sensor in the indoor unit (Open/ Short)	•	•	х	x	
Error of fan motor in the indoor unit	х	х	•	Х	
Error of the outdoor temperature sensor Error of the condensor temperature sensor Error of the discharge temperature sensor	•	X	•	х	
No communication for 2 minutes between indoor and outdoor unit (communication error for more than 2 minutes)	Х	•	•	x	
Error of outdoor unit Error of the terminal block thermal fuse (Open)	Х	•	•	0	
Detection of the float switch	Х	х	•	•	
EEPROM ERROR EEPROM option error	•	•	•	0	
Outdoor valve clogging error	•	х	•	•	
MDS (Motion Detecting Sensor) Error	0	Х	Х	0	
Error due to connecting outdoor units that do not support the WindFree function	•	•	Х	•	

#### igodot : On, igodot : Flickering, X : Off

If you turn off the air conditioner when the LED is flickering, the LED is also turned off.

# SAMSUNG

