SAMSUNG

Multiposition AHU
AC✳✳✳KNZDCH/AA

Air Conditioner
installation manual

imagine the possibilities

Thank you for purchasing this Samsung product.

SAMSUNG

Contents

Safety Precautions

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

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

General information

▶ Carefully read the content of this manual before installing the air conditioner and store the manual in a safe place in order to be able to use it as reference after installation.

▶ For maximum safety, installers should always carefully read the following warnings.

▶ Store the operation and installation manual in a safe location and remember to hand it over to the new owner if the air conditioner is sold or transferred.

▶ This manual explains how to install an indoor unit with a split system with 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 hydraulic lines. Failure to comply with these instructions or to comply with the requirements set forth in this 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, fire or injuries, always stop the unit, disconnect power supply 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 piping 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 files.

▶ Do not place containers with liquids or other objects on the unit.

▶ All the materials used for the manufacturing and packaging of the air conditioner are recyclable.

▶ The packing material and depleted batteries of the remote control (optional) must be disposed of in accordance with current laws.

▶ Please follow federal safe disposal requirements when disposing air conditioner containing refrigerants. You should also check with your local environmental agency to make sure that you comply with any local or state regulations.

Installing the unit

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

▶ Upon receipt, inspect the product to verify that it has not been damaged during transportation. If the product appears damaged, DO NOT INSTALL it and immediately report the damage to the distributor or place of purchase.

▶ After completing the installation, always carry out a functional test and provide the instructions on how to operate the air conditioner to the user.

▶ Do not use the air conditioner in environments with hazardous substances or close to equipment that release free flames to avoid the occurrence of fires, explosions or injuries.

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

Power supply line, fuse or circuit breaker

▶ Always make sure that the power supply is compliant with current safety standards. Always install the air conditioner in compliance with current local safety standards.

▶ Always verify that a suitable grounding connection is available.

▶ Verify that the voltage and frequency of the power supply comply with the specifications and that the installed power is sufficient to ensure the operation of any other domestic appliance connected to the same electric lines.

▶ Verify circuit breaker size and fuses match unit specification.

▶ 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.

Safety Precautions

⚠️ **CAUTION**

- Make sure that you earth/ground the power 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 (3.28') away from the electric appliance.
- Install the indoor unit away from lighting apparatus using the ballast.
  - If you use the wireless remote control, reception error may occur due to the ballast of the lighting apparatus.
- Do not install the air conditioner in following places.
  - Place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak. The capacity of the heat exchanger may reduce or the air conditioner may be out of order.
  - The place where corrosive gas such as sulfurous acid gas generates from the vent pipe or air outlet.The copper pipe or connection pipe may corrode and refrigerant may leak.
  - The place where there is a machine that generates electromagnetic waves.The air conditioner may not operate normally due to control system.
  - The place where there is a danger of existing combustible gas, carbon fiber or flammable dust.The place where thinner or gasoline is handled. Gas may leak and it may cause fire.

General Information

The following list includes important facts and information regarding the electric air handler and its inclusions.

1. Air handler is rated at 230 volts AC at 60 Hertz
2. Air handler size varies by model
3. Two-wire, wired controller operation (only Samsung "N" series wired controllers are compatible).
4. Two wires indoor and outdoor unit communication.
5. Samsung wired controller required
6. Air handlers are equipped with blower for A/C or heat pump operation.
7. The air entering the air handler must be filtered.
8. This air handler is designed for multi position, upflow and horizontal application. (optional down flow kit available)
9. This air handler must not be operated without the outdoor installed.
10. This air handler will not operate without an outdoor unit connected, completing the system.

NOTE: This air handler and its components listed on the A/C and heat pump equipment sticker were listed in combination as a system by ETL for the United States and Canada.

- This single place air handler provides the flexibility for installation in any upflow or horizontal application. (optional down flow kit available)
- These models may be used with or without electric heat.
- Only use electric heat that is designed for this unit and provided by Samsung.
- The direct drive, five speed constant torque motors provide a selection of air volume to match the application.
- The unit can be positioned for bottom air return in the upflow position, or air return through the end of the unit in the horizontal position.

Product Inspection

As soon as the air handler is received, it should be inspected for possible damage during transit. If damage is evident, the extent of the damage should be noted on the carrier's freight bill. A separate request for inspection by the carrier's agent should be made in writing. Before installing the air handler you should check the cabinet for screws or bolts which may have loosened in transit. There are no shipping or spacer brackets which need to be removed before startup. See local Distributor for more information. Samsung assumes no liability for freight damage. Installation of these accessories should be accomplished before the air handler is set in place or the connecting of the wiring, electric heat, ducts or piping.

Accessories

The following accessories are supplied with the indoor unit.

Installation manual	Warranty card
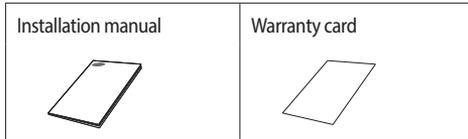
Selecting the installation location

Decide the installation location, with the consideration of the following conditions.

- Place where airflow is not disturbed.
- Place on flat surface where the structure can bear the weight and vibration of the indoor unit. (If the structure is not strong enough, indoor unit may fall and be damaged or cause personal injury.)
- Place where sufficient space can be guaranteed for maintenance and other services.
- Place where condensation can be drained easily.
- Place that allows refrigerant pipe connection within allowable distance.
- Place where indoor unit will not be exposed to direct sunlight.
- Place that can keep the distance of at least 3.28 ft (1 m) between power/communication cable and any electronic devices (depending on the circumstances, problem may occur even if you secure 3.28 ft (1 m) of distance).

Dimensions

TOP

LEFT SIDE   FRONT   RIGHT SIDE

BOTTOMs
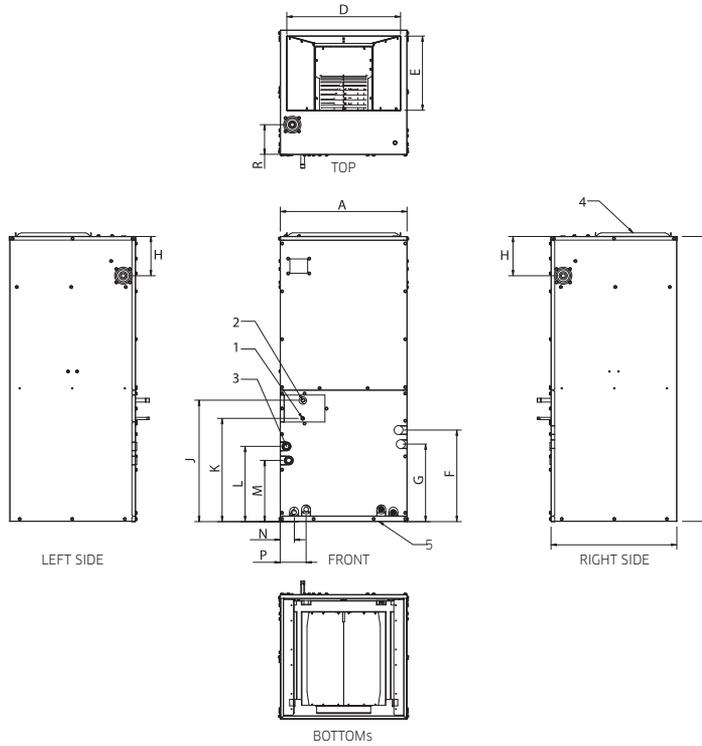
DIMENSIONAL DATA MULTI-POSITION AIR HANDLER																
MODEL		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R
AC0 18/24 KNZDCH/AA	inch	17.50	43.00	21.00	15.50	12.50	13.50	11.00	6.75	16.75	14.00	11.00	8.50	2.00	4.00	2.00
	mm	444.50	1092.20	533.40	393.70	317.50	342.90	279.40	171.45	425.45	355.60	279.40	215.90	50.80	101.60	50.80
AC0 30/36 KNZDCH/AA	inch	21.00	48.00	21.00	19.00	12.50	13.38	13.00	6.75	20.00	17.00	12.75	10.30	2.30	4.35	2.50
	mm	533.40	1219.20	533.40	482.60	317.50	339.73	330.20	171.45	508.00	431.80	323.85	261.62	58.42	110.49	63.50
AC0 42/48/54 KNZDCH/AA	inch	24.50	58.75	21.75	19.50	16.25	19.75	17.25	6.75	26.00	23.00	16.75	14.35	2.30	4.35	2.00
	mm	622.30	1492.25	552.45	495.30	412.75	501.65	438.15	171.45	660.40	584.20	425.45	364.49	58.42	110.49	50.80

NOTE: ALL DIMENSION ARE IN IN5CHES AND ARE APPROXIMATE. ALL DIMENSIONS ARE ROUNDED

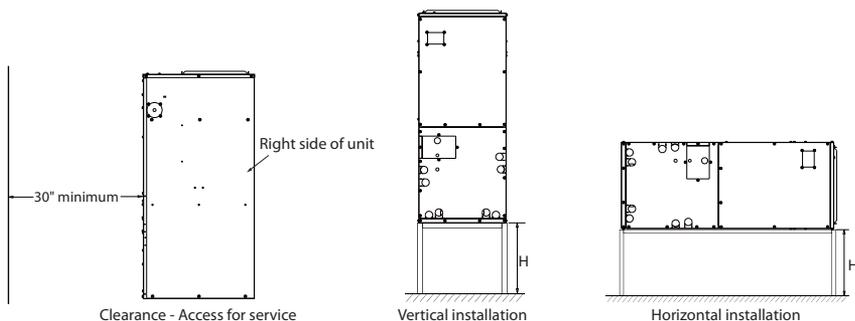| No.	Description
1	**018/024** : Φ1/4"(Φ6.35mm) **030/036/042/048/054** : Φ3/8"(Φ9.52mm)
2	**018** : Φ1/2"(Φ12.7mm) **024/030/036/042/048** : Φ5/8"(Φ15.88mm) **054** : Φ3/4"(Φ19.05mm)
3	3/4" NPT(Φ19.05mm)
4	-
5	-

Indoor unit installation

Refrigerant pipe work must be done before installing the indoor unit.

Location

Access for servicing is an important factor in the location of any air handler. Provide a minimum of 30 inches in front of the appliance for access to the control box, heating elements, blower and air filters. This access may be provided by a closet door or by locating the appliance so that a wall or partition is not less than 30 inches from the front access panel. Consider the following in choosing a suitable location.

1. Select a location with adequate structural support, space for service access, and clearance for return and supply duct connections.

2. Normal operating sound levels may be objectionable if the air handler is placed directly over or under some rooms such as bedrooms, study, etc.

3. Caution should be taken to locate the unit so that supply and return air ducts are about the same length causing even air distribution of supply and return air to and from the living spaces.

4. Locate appliance where electrical supply wiring can be easily routed to main electrical panel and where electrical wiring will not be damaged.

5. Locate appliance where control wiring can be easily routed to the controller and where the wiring will not be damaged.

6. Locate appliance where refrigerant lines can be easily routed from the indoor unit to the outdoor unit.

7. Locate the appliance where condensate lines can be easily routed to an available drain. Be sure to route condensate drain piping to not obstruct access to the air filter.

8. The coil is installed in a draw-thru application and will create a negative pressure situation in the condensate drain system. To prevent condensate from being drawn into the blower it is recommended to trap the primary (Main) and secondary (Overflow) drain line. Refer to Drain Pipe and Drain Hose section in these instructions. If the secondary drain is not used, it must be capped. This unit has a connection terminal for drain system monitoring. Refer to Wiring Work section for information regarding connection of field-provided condensate overflow device in these instructions.

9. The draw-thru design will cause exterior surface of cabinet to sweat when unit is installed in a non-conditioned space such as an attic or garage. Installer must provide protection such as full size auxiliary drain pan on all units installed in a non-conditioned space to prevent damage from condensation runoff. Some states, cities and counties require additional insulation to be installed on the exterior casing of the air handler to prevent sweating. Refer to the state, city, county or local code for insulation requirement to be sure the installation is in compliance. It is recommended that air handlers installed in non-conditioned spaces be insulated on the exterior of the entire cabinet, including the front access panel with one (1) inch thick fiberglass with the vapor barrier on the outside.

10. Ensure sufficient space for the bottom of the product (H dimension) so that a downward slope of 1/100 can be maintained for drain piping, as described for the intake duct installation and in "**Drain pipe installation**".

30" minimum

Right side of unit

Clearance - Access for service

Vertical installation

Horizontal installation

H

H

Indoor unit installation

This appliance is approved for zero (0) inches clearance to combustible material on any part of the air handler exterior casing and the inlet or outlet ducts providing NO electric heater is being used. There is a one (1) inch clearance on the supply plenum and supply air duct when an electric heater is installed in the appliance. Refer to Table below for clearance to combustibles information.

Top (inches)	Back (inches)	Sides (inches)	Front of unit		Duct (inches)
			Alcove (inches)	Closet (inches)	
0	0	0	30	6	1 *

 * when electric heat kit accessory is installed

Return air requirements
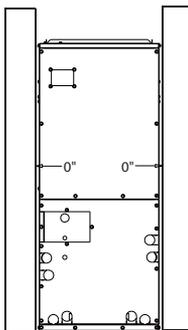
Return Air Requirements

In order for the air handler to work properly, a closet or alcove must have a certain total free area opening for the return air.

For A/C and HP Air Handlers 1/3 HP Blower Motor

• Minimum 200 in^2 free area opening

• Use Return Grille that can supply sufficient air to ensure proper performance.

For A/C and HP Air Handlers 1/2 HP Blower Motors

• Minimum 250 in^2 free area opening

• Use Return Grille that can supply sufficient air to ensure proper performance.

For A/C and HP Air Handlers with Electric Heat use 3/4 HP Blower Motor

• Minimum 390 in^2 free area opening

• Use Return Grille that can supply sufficient air to ensure proper performance.

The return air opening can be located in the floor, on a closet front door or in a side wall above the air handler casing. If opening for the return air is located in the floor, side walls, or closet door anywhere below the appliance casing, a 6 inch minimum clearance between the appliance and the wall or door must be provided on the side where the return is located to provide for proper air flow. The 6 inch minimum clearance is not required if there is a return grille installed above the appliance casing, providing the grille has a sufficient return air opening.

Indoor unit installation

Return air requirements

Closet Wall
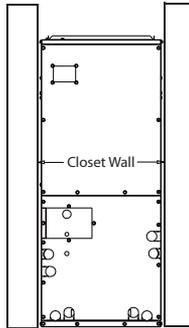
Typical Closet Installations

Provisions shall be made to permit the air in the rooms and the living spaces to return to the air handler. Failure to comply may cause a reduction in the amount of return air available to the blower, causing reduced air flow resulting in improper heating and cooling of the living space. The reduced air may cause the air flow handler to cycle on the limit causing premature heating element failure (if electric heat kits are installed).

Upflow Accessory Filter Box Kit

An accessory filter box kit can be used on the return air end of the air handler when configured in the upflow position. The filter kit is placed over the return plenum in the floor and sealed to the plenum using sealant or caulking material and/or tape. The air handler is placed on top of the return filter box and the return opening sealed to prevent leaks.

NOTE: Make sure the flow arrow on the air filter is pointing towards the coil.

ADJUSTMENT KNOB FOR 1" OR 2" FILTER   ADJUSTMENT KNOB FOR 1" OR 2" FILTER
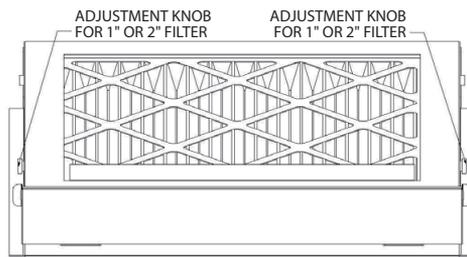
Accessory Air Filter Box for 1" or 2" Air Filters. Filter Size Adjustment knob is on both sides.

FILTER BASE ASSEMBLY KIT MODEL NUMBERS - FIELD INSTALLED, PURCHASED SEPARATELY

VFB-1 – 16" X 20" X 2" Small Cabinet (18/24K)

VFB-2 – 20" X 20" X 2" Medium Cabinet (30/36K)

VFB-3 – 20" X 24" X 2" Large Cabinet (42/48/54K)

Indoor unit installation

Arrangement:

Unit is shipped from the factory arranged to be installed in an upflow or horizontal left (right to left air flow) position. Horizontal left means when the unit is laid on its side and you are facing the unit, the supply air opening is to the left and the return opening is to the right. These models are field convertible to a horizontal right (left to right) air flow position.

Airflow   Airflow

Horizontal left arrangement
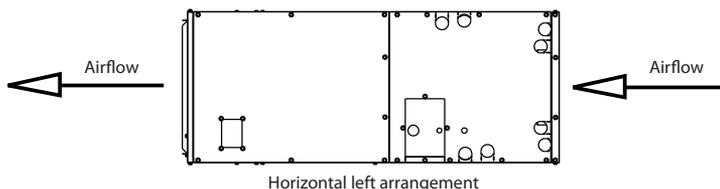
Upflow application

In an upflow installation the discharge outlet is at the top. Care should be taken to insure unit is level to permit proper condensate drainage. Normal upflow installation will be in a closet or basement. If installed in a closet, it must have a platform framed in. The platform must have an opening centered in the closet that measures at least 12 inches in height from the floor. A filter frame and filter can be used that covers the opening and is sealed to prevent air by-passing the filter. A filter grille can be used that is located as described in RETURN AIR REQUIREMENTS section. The minimum filter size is shown in the table below.

Standard throw away air filter @ 300 ft/min or less	Pleated Air Filter @ 500 ft/min or less
800 CFM = 20 x 20 x 1	800 CFM = 16 x 16 x 1
1000 CFM = 20 x 25 x 1	1000 CFM = 18 x 20 x 1
1200 CFM = 20 x 30 x 1	1200 CFM = 20 x 20 x 1
1400 CFM = 25 x 30 x 1	1400 CFM = 20 x 20 x 1
1600 CFM = 25 x 30 x 1	1600 CFM = 20 x 25 x 1
1800 CFM = 30 x 30 x 1	1800 CFM = 20 x 30 x 1 or two 20 x 15 x 1
2000 CFM = 30 x 40 x 1 or two 30 x 20 x 1	2000 CFM = 20 x 30 x 1 or two 20 x 15 x 1
2400 CFM = 30 x 40 x 1 or two 30 x 20 x 1	2400 CFM = 25 x 30 x 1 or two 14 x 30 x 1

Another option is to use the Filter Base Accessory Kit. This filter base is placed on the closet floor and secured with screws. The unit is placed on top of the filter base and secured to the base with screws. Use seal strip, tape or calking to seal between the unit and the base.
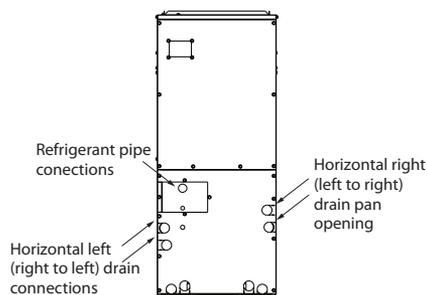
Connect the supply air outlet to a plenum to the top of the unit and secure it with screws. Use a Non-tape sealant such as mastic or an aerosol sealant to seal duct leakage. If installed in a basement, run supply and return duct work in accordance with local codes. Use a Non-tape sealant such as mastic or an aerosol sealant to seal duct leakage.

Indoor unit installation

Horizontal application

Horizontal applications will normally be used in an attic or crawl space. This type of installation requires supply air plenum or duct to be connected to the supply collar and a return air plenum or duct be attached to the unit inlet collar. The supply ducts will be connected to the supply air plenum and routed through the attic to a register in each room. Use a Non-tape sealant such as mastic or an aerosol sealant to prevent leaks in the ducts and the plenum.

The opposite end of the return air duct is attached to a return filter grille housing. The filter grille is usually located in a wall, just below the ceiling or the ceiling in a hallway. Use a Non-tape sealant such as mastic or an aerosol sealant to prevent leaks in the ducts and the plenum.

Refrigerant pipe conections

Horizontal right (left to right) drain pan opening

Horizontal left (right to left) drain connections

Horizontal right application (left to right)

The unit is shipped to be installed without modification in a right to left configuration. For left to right applications:

1. Remove the unit access panels
2. Remove the cooling coil after disassembling bracket coil and plate.
3. Move the condensate drain pan to the right side of the unit chassis.
4. Move the Evap In temperature sensor to holder of the right side.
5. Reinstall the cooling coil.
6. Connect the condensate drains and refrigerant lines. DRY NITROGEN MUST BE FLOWED THROUGH REFRIGERANT LINES DURING SOLDERING OPERATION.
7. Reinstall unit access panels.

※ In all horizontal applications in which the unit is installed above a finished ceiling and/or living space, it is recommended that a secondary drain pan (field supplied) is installed under the entire unit to avoid damage to the ceiling in the event of condensate overflow.

Evap. In Temperature Sensor

Move drain pan to right side of coil
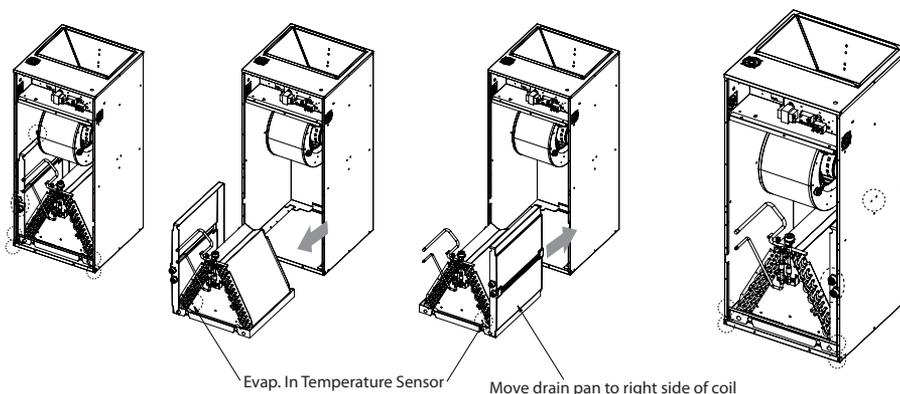
Closet installation

Prior to installing the air handler make sure holes are cut into the for refrigerant tubing, drain line, electrical wiring, and control wiring.

1. Remove the top shipping cover and corner posts.
2. Remove the bottom shipping cover.
3. Remove the blower and control box access panel (door).
4. Remove the coil compartment access panel (door).
5. Place the unit into position by sliding the unit over the duct opening until the opening in the unit lines up with the duct opening in the floor.
6. Secure the unit to the floor by drilling two holes through the air handler base at the left and right front inside corners of the cabinet. Use two screws to secure the unit to the floor.
7. Use calking, sealers, and/or tape to seal between the floor base and the opening on the unit or between the opening on the unit and the duct in the floor.
8. Connect the electrical supply wires and the control wires in the control box.
9. Connect the refrigerant lines to the coil. DRY NITROGEN MUST BE FLOWED THROUGH REFRIGERANT LINES DURING SOLDERING OPERATION.
10. Re-install the coil compartment access panel (door) and secure with the screws that were removed in step 3.
11. Re-install the blower and control box access panel (door) and secure with the screws that were removed in step 2.

Refrigerant piping

Air Handlers with DX type evaporator coils require liquid and suction piping sized in accordance with condensing unit manufacturer's instructions. The evaporator coils have sweat copper connections. Refrigerant lines should be soldered with silver solder or high temperature brazing alloy.

DRY NITROGEN MUST BE FLOWED THROUGH REFRIGERANT LINES DURING SOLDERING OPERATION.

REFER TO OUTDOOR UNIT INSTALLATION MANUALS FOR PRESSURE CHECKING AND VACUUM DRYING PROCEDURES.

There are two refrigerant pipes of differing diameters:

• A smaller one for the liquid refrigerant
• A larger one for the gas refrigerant
• The inside of copper pipe must be clean & have no dust.

Prepare the connecting pipe referring to the list below.

• Refrigerant pipe diameters (inches)

	18	24	30	36	42	48	54
Liquid pipe	1/4	1/4	3/8	3/8	3/8	3/8	3/8
Gas pipe	1/2	5/8	5/8	5/8	5/8	5/8	3/4

Cutting the pipes

1. Make sure that you prepared the required tools. (pipe cutter, reamer, aring 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.

90°   Oblique   Rough   Burr
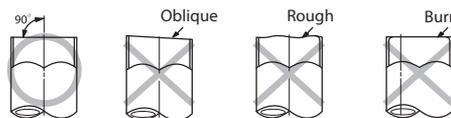
Performing leak test & insulation

Leak test

LEAK TEST WITH NITROGEN (before opening valves)

In order to detect basic refrigerant leaks, before recreating the vacuum and recirculating the R-410A, it's responsible of installer to pressurize the whole system with nitrogen (using a pressure regulator) at a pressure above 595 PSI (4.1MPa).

LEAK TEST WITH R-410A (after opening valves)

Before opening valves, discharge all the nitrogen in 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

Leak check
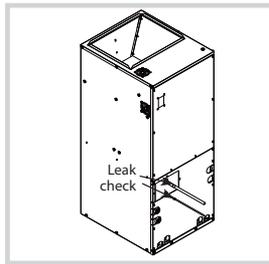
Insulation

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

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

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

> 📄 **NOTE**   Always make the seam of pipes face upwards.

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

3. Finish wrapping insulating tape around the rest of the pipes leading to the outdoor unit.

4. The pipes and electrical cables connecting the indoor unit with the outdoor unit must be fixed to the wall with suitable ducts/straps.

Leak check

NBR [T13.0mm (0.51") or thicker]

Insulation

Insulation

Insulation

Gas pipe

Liquid pipe

Indoor unit

Insulation pipe

Be sure to overlap the insulation
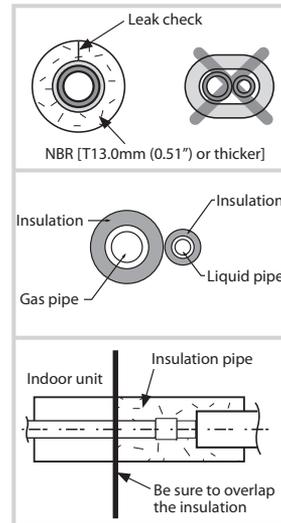
> ⚠️ **CAUTION**   All refrigerant connection must be accessible, in order to permit either unit maintenance or removing it completely.

> ⚠️ **CAUTION**   Must fit tightly against body without a gap.

Performing leak test & insulation

5. Select the insulation of the refrigerant pipe.

- Insulate the gas side and liquid side pipe referring to the thickness according to the pipe size.
- Indoor temperature of 86 °F(30 °C) and humidity of 85% is the standard condition.If install in a high humidity condition,use one grade thicker insulator by referring to the table below.If installing in an unfavorable conditions, use a thicker wall insulation.
- Insulator's heat-resistance temperature should be more than 248 °F (120 °C).

Pipe	Outer diameter		Insulation Type (Cooling/Heating)				Remarks
			General [30°C (86°F), 85% or below]		High humidity [30°C (86°F), more than 85%]		
			EPDM, NBR				
	mm	inch	mm	inch	mm	inch	
Liquid pipe	6.35~9.52	1/4~3/8	9	3/8	9	3/8	Internal temperature is higher than 248 °F (120 °C)
	12.7~50.8	1/2~2	13	1/2	13	1/2	
Gas pipe	6.35	1/4	13	1/2	19	3/4	
	9.52~25.4	3/8~1	19	3/4	25	1	
	28.58~44.45	1 1/8~1 3/4	19	3/4	32	1 1/4	
	50.8	2	25	1	38	1 1/2	

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

    <Geological condition>

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

    <Operation purpose condition>

    - Restaurant ceiling, sauna, swimming pool etc.

    <Building construction condition>

    - The ceiling frequently exposed to moisture and cooling is not covered.e.g. The pipe installed at a corridor of a dormitory and studio or near an exit that opens and closes frequently.
    - The place where the pipe is installed is highly humid due to the lack of ventilation system.

Additional refrigerant

- System refrigerant volume is based on linear feet of liquid line pipe and indoor equipment model/quantity.
- Refer to the outdoor unit installation manuals for information regarding refrigerant volume for system components.
- See table below for additional refrigerant volumes for each air handler.

Drain pipe installation

The air handler "A" coil drain pan has two ¾" NPT (Φ19.05mm) female primary and two secondary connections (left or right hand). The horizontal pan has two ¾" NPT (Φ19.05mm) female, one primary and one secondary. Piping from each fitting used is to have 2 inch (50.8mm) minimum trap and each run in such a manner as to provide enough slope for adequate drainage to a visible area. Do not pipe these two fittings together into a common drain. <u>Prime drain with water before operating the unit by pouring water into the condensate pan</u>. Cap unused connections.

2" minimum (50.8mm minimum)

Anti-syphon air vent

2" minimum (50.8mm minimum)

2" minimum (50.8mm minimum)

Typical Condensate Traps

Refrigerant pipe conections

Horizontal left (right to left) drain connections

Horizontal right (left to right) drain pan opening
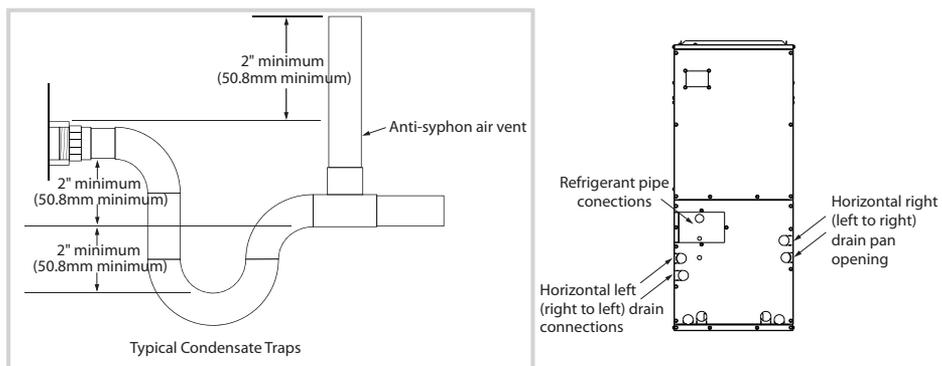
⚠️ **CAUTION**
- Make sure to keep the drain hose from getting tangled or loosened (on the connection part).
- Insulate all condensate pipes connected to the indoor unit to prevent condensation formation. Condensate formation on condensate pipes can lead to property damage and unsafe environment conditions.

When passing the drain hose through the hole drilled in the wall, make sure to avoid following cases.

⚠️ **CAUTION**
- Since the draining is of natural drain type, install the drain hose in downward direction.
- If you do not tie the drain hose with a cable tie, leakage may occur
- Drain pipe may get clogged if there is any foreign substances within the drain pan, so you must remove any foreign substances after completing the installation.

Water leakage test

1. Pour water into the condensate pan.
2. Make sure that draining is done properly by checking end of the drain pipe.
3. If water leakage occurs, make sure the indoor unit is level. Also verify the drain pipe is installed with a downward slope away from the indoor unit.

> **⚠ CAUTION**
> - After connecting the drain pipe to the indoor unit, you must perform leakage test. If the drain test has not done properly, water may get into the indoor and cause property damage.
> - Empty the condensation water in the drain pan before any repair/maintenance service.

Drain pipe insulation

Indoor unit

Fix securely without any gap.
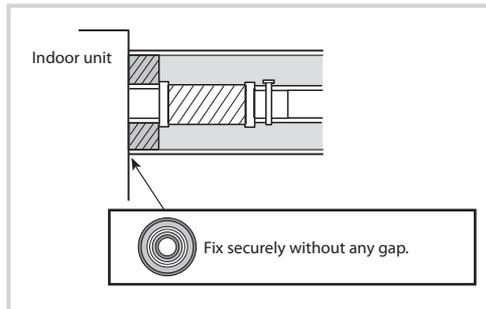
> **⚠ CAUTION**
> - You must insulate drain pipes.
> - Make sure to prevent any gap between the insulation on drain pipe elbows.
> - Make sure that insulation is overlapped.

Wiring Work

> **⚠ WARNING**
> - For personal safety be sure to turn the electrical power "OFF" at the main entrance (Home Circuit Breaker Box) and at the unit control box circuit breakers before attempting any service or maintenance operations. Homeowners should never attempt to perform any maintenance which requires opening the air handler control box door.
> - This air handler is not equipped with a shield that covers the line voltage electrical supply wires and the circuit breaker connections. Take precautions to prevent accidental electrical shock. Be sure to turn the electrical power "OFF" at the main entrance (Home Circuit Breaker Box) and at the control box circuit breakers before removing the front panel.

Power supply wiring

- The unit internal wiring is complete except for the power supply and control wires.
- The use of cable connectors on incoming power supply wires to relieve any strain on wiring is recommended.
- Follow the steps below to connect the power supply wires.
- Supply voltage is 208/230V, 1ø, 60 Hz.
- If you are installing optional heat kits, refer to the heat kit installation instructions for line voltage connection instructions

16

Wiring diagram

Indoor Unit

Cable clmap

Cable clmap

Indoor Power   Main power cable   Communication cable

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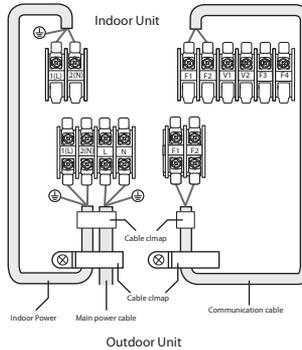
Between Indoor and Outdoor Connection cable Specifications(Common in use)

Indoor Power supply			Communication Cable
Power Supply	Max/Min(V)	Indoor Power cabel	
208~230V/60Hz	±10%	0.0039in^2 ↑,3wires (2.5mm^2 ↑,3wires)	16/2 AWG shielded cable (0.75~1.25mm^2,2wires)

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

Terminal Block SPEC (Indoor)

AC POWER : M4 SCREW   COMMUNICATION : M4 SCREW

0.43(8.4)   0.51(9.5)   0.43(8.4)   0.51(9.5)

0.7/10.0)   0.7/10.0)
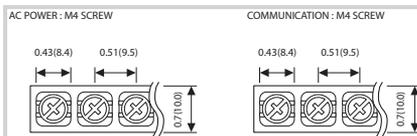
Tightening Torque		
M4	12.0~18.0 (kgf·cm)	0.86~1.3.0 (lbf·ft)

⚠ **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.
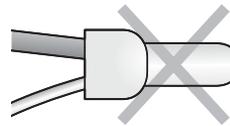
Wiring Work

Single circuit line wiring connections

⚠️ **CAUTION**

If an accessory heat kit is installed, power must enter the unit on the top or the top-left side of the unit as shown below (A).

1. Before wiring work, you must turn off all power source.
2. Only copper power cables should be used.
3. Remove the blower and control box access panel (door).
4. Install the cable connectors on the 7/8" diameter holes on the right side of the control box.
5. Insert the wires through the holes in the casing and through the cable connectors.
6. Connect the black supply wire to the L1[1(L)] high voltage connection terminal with compressed ring terminals.
7. Connect the white supply wire to the L2[2(N)] high voltage connection terminal with compressed ring terminals.
8. Connect the green wire to the ground lug near the supply wire connections with a compressed ring terminal and tighten the ground screw. Make sure to leave extra slack in the ground wire to allow service to the unit without disconnecting the ground wire.

Left side   Right side

A - Power conduit connection opening (must use when installing accessory electric heat kit).

B - Power conduit connection opening (do not use when installing accessory electric heat kit).

C - Communication wire conduit connection opening
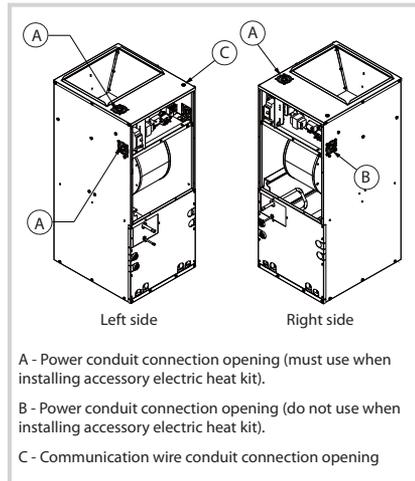
IMPORTANT - All insulation on field wiring must be rated at 140°F (60ºC) or higher. Please refer to the wiring diagrams on the air handler or the tables in this manual for more information.

IMPORTANT - Refer to the NEC National Electrical Code (NFPA 70) or the Canadian Electrical Code, Part I (CSA C22.1) and local codes for wiring material requirements.

18

Power supply wiring with accessory electric heat kit

1. Before wiring work, you must turn off all power source.
2. Only copper power cables should be used.
3. Remove the blower and control box access panel (door).
4. Install the cable connectors on the 7/8" diameter holes on the left side of the control box.
5. Connect the included power pigtail leads with ring connectors (included with heat kit) to 1(L) and 2(N) terminals located on the right side of the control box.
6. Route the power pigtail leads through the control box opening pictured below and route to the left side of the control box for connection to the heat breakers in a later step.

Power conduit connection openings
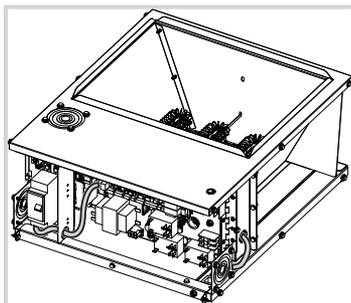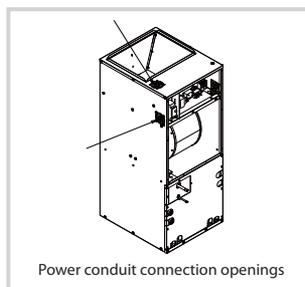
7. Swing the hinged control plate outward exposing the back side of the control box. Remove the screws holding the electric heat kit block off plate. Save the screws.
8. Carefully pass the accessory heating element through the rectangular opening in the discharge of the air handler and secure the heating element with the screws from step 8. Heating element support rod must be seated in the hole on the opposite side of the discharge.
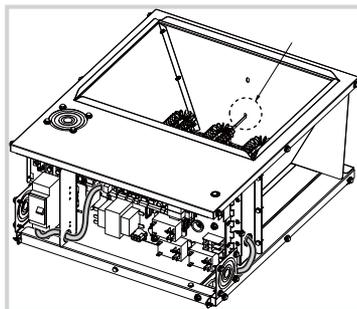
9. Install the breakers at the front-left of the control box.
10. Connect the power pigtail leads that are connected to 1(L) and 2(N) to the bottom of the breakers.
11. Insert the power wires through the holes in the casing and through the cable connectors.
12. In order to use heating function, you need change the installation option code. Set SEG10 to 1. For more information on changing the option code, refer to "Setting an indoor unit installation option" on page 39.

Wiring Work

Power supply wiring with accessory electric heat kit

13. Strip ½" of the insulation on the end of each power wire.

14. Connect the black supply wire to the high voltage connection lug on the accessory heat kit breaker.

15. Connect the white supply wire to the other high voltage connection lug on the accessory heat kit breaker.

16. Connect the green (ground) wire to the ground lug to the left of the accessory heat kit breakers and tighten the ground lug screw. Make sure to leave extra slack in the ground wire to allow service to the unit without disconnecting the ground wire. If the heat kit requires 2 circuits (dual circuit) , both circuit ground wires must be connected to a ground lug (dual circuit kits have two individual ground lugs).

Ground Lug

Breaker

V-AHU Control Box (single circuit)   6 Pin Plug
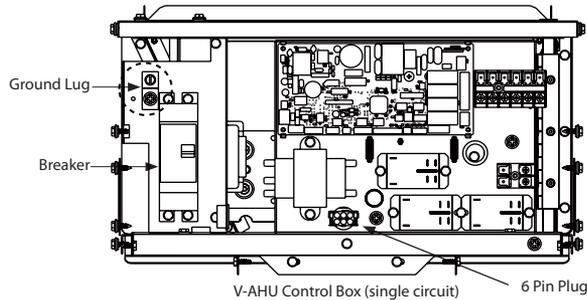
17. Connect the six pin male plug on the electric heater assembly to the six pin female plug mounted at the bottom of the control assembly door.

18. Remove the wiring diagram from the accessory heat kit. Remove the paper that covers the adhesive back and place the electric heat wiring diagram over the wiring diagram located on the blower housing.

19. Route temperature sensor from the accessory electric heat kit to the lower section of the AHU cabinet. Attach the sensor to the bottom of the suction pipe as shown below with included wire ties.

Suction Pipe

Insulation (wrapped around pipe and sensor)

Wire Tie (to secure sensor to pipe)

Suction Pipe

Wire Tie (to secure insulation)

Sensor

Sensor Wire

20. Wrap included insulation around the sensor and secure with included wire ties.

21. Remove the breaker opening cover plate on the AHU door and secure the doors to the unit.

NOTE: The electric heat kits are equipped with either one or two circuit breakers. These circuit breakers protect the wiring inside of the AHU in the event of a short circuit. Additionally, these breakers provide a means of disconnecting the power to the unit. The circuit breakers in the AHU's are not meant to protect the branch circuit wiring between the furnace and the building's breaker panel. If sheathed cable is used, refer to NEC National Electrical Code (NFPA 70) or the Canadian Electrical Code, Part I (CSA C22.1) and local codes for additional requirements concerning supply circuit wiring. Electrical data can be found in page 21.

IMPORTANT - All installation on field wiring must be rated at 60ºC or higher. Please refer to the wiring diagrams on the furnace or the tables this manual for more information. The 15kW and 20kW models may be connected to a single or dual branch circuit. Refer to the NEC National Electrical Code (NFPA 70) or the Canadian Electrical Code, Part I (CSA C22.1) and local codes for wiring material requirements.
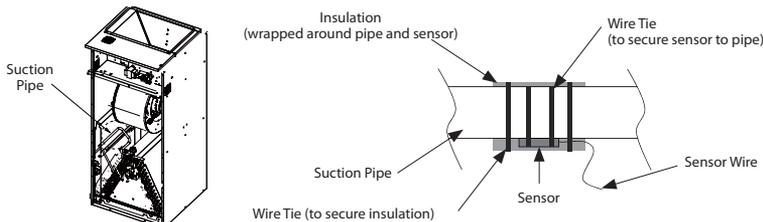
Power supply connections

If the air handler has been installed prior to installing the electric heaters or if an older unit is being replaced, the supply power wires must be checked to make sure the wires are the proper sizes to handle the current load for the heaters.Refer to table below for correct wire size. If the supply power wire size is incorrect, new wires will need to be installed. Follow the instructions "Power supply wiring" on page 16 of these instructions for proper installation.

Indoor Unit Model	Electric Heater Data						Minimum Circuit Ampacity (MCA)				Maximum Overcurrent Protection (MOCP)				Minimum Wire Size (AWG)				Short-Circuit Current Rating	
	Circuit Qty.	Kw (2)	Amps 208V Circuit 1	Amps 208V Circuit 2	Amps 240V Circuit 1	Amps 240V Circuit 2	208V Circuit 1	208V Circuit 2	240V Circuit 1	240V Circuit 2	208V (3,4) Circuit 1	208V (3,4) Circuit 2	240V (3,4) Circuit 1	240V (3,4) Circuit 2	Circuit 1 75°C/90°C	Circuit 1 60°C	Circuit 2 75°C/90°C	Circuit 2 60°C	"SCCR" kA rms symmetrical	"SCCR" V maximum
SMALL CABINET-NOMINAL1.0, 1.5 & 2.0 TONS (0 To 5 Kw)																				
AC018KNZDCH/AA	1	3	10.90	-	12.50	-	13.63	-	15.63	-	15.0	-	20.0	-	#12	#12	-	-	n/a	n/a
AC024KNZDCH/AA	1	5	18.03	-	20.83	-	23.26	-	26.76	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
MEDIUM CABINET-NOMINAL 2.5, 3.0 TONS (0 To 10 Kw)																				
AC030KNZDCH/AA	1	5	18.03	-	20.83	-	24.20	-	27.70	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
AC036KNZDCH/AA	1	10	36.06	-	41.67	-	46.73	-	53.74	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
LARGE CABINET-NOMINAL 4.0, 4.5, 5.0, 6.0 TONS (0 To 20 Kw)																				
AC042KNZDCH/AA	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
AC048KNZDCH/AA	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
AC054KNZDCH/AA	1	5	18.0	-	20.8	-	24.6	-	26.0	-	30.0	-	30.0	-	#10	#10	-	-	n/a	n/a
AC054KNZDCH/AA	1	10	36.1	-	41.7	-	45.1	-	52.1	-	50.0	-	60.0	-	#6	#4	-	-	n/a	n/a
AC054KNZDCH/AA	2	15	18.0	36.1	20.8	41.7	24.6	47.2	28.1	54.2	30.0	50.0	30.0	60.0	#6	#4	#10	#10	5	240

Table heading: ELECTRICAL DATA

1. Rated Motor Amps (at DOE External Static Rating Point)
2. Nominal Kw At 240V (Derate 25% For 208V)
3. Fuse or HACR Breaker
4. Maximum Overcurrent Device, Overcurrent Protection Installed On Breaker Models Are Sized Per MCA

- To prevent damage, carefully insert the electric heating assembly through the rectangular opening in the front of the discharge opening so the heat element support rod is seated into the hole on the back side of the discharge opening.
- After installing the electric heater, a one inch clearance must be maintained on all sides of the supply air duct and/or plenum for a minimum of thirty six inches from the air handler discharge opening.

Wiring Work

Communication wiring connections

- Communication wires connect through side of air handler and be 2 X 16 AWG shielded.
- Use an approved connector at the cabinet of the unit to prevent pulling or shorting of control wires.

> ⚠️ **ATTENTION**
> - Control wire must be rated for 600V minimum.
> - Control wire insulation must be rated for temperatures up to 90℃.

1. Insert the wires through the holes of the right side on the top casing and through the cable connectors.
2. Connect the communication wires to the F1/F2 connection terminal with compressed ring terminals.
3. Connect F3, F4 (for communication) when installing the wired remote control.

PBA ground screw/connection to chassis

F1/F2 communication connection terminals

Supply power ground connection point

1(L)/2(N) high voltage connection terminals
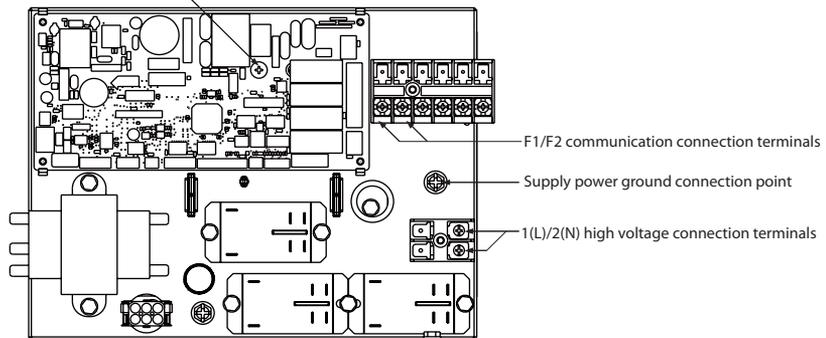
Selecting compressed ring terminal

Silver solder
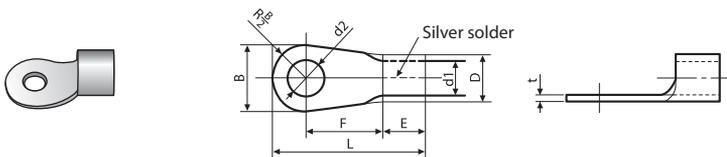
Nominal dimensions for cable [inch²(mm²)]	Nominal dimensions for screw [inch(mm)]	B		D		d1		E	F	L	d2		t
		Standard dimension [inch(mm)]	Allowance [inch(mm)]	Standard dimension [inch(mm)]	Allowance [inch(mm)]	Standard dimension [inch(mm)]	Allowance [inch(mm)]	Min. [inch(mm)]	Min. [inch(mm)]	Max. [inch(mm)]	Standard dimension [inch(mm)]	Allowance [inch(mm)]	Min. [inch(mm)]
0.0023 (1.5)	0.16(4)	0.26(6.6)	±0.0079 (±0.2)	0.13(3.4)	+0.012(+0.3) -0.0079 (-0.2)	0.067(1.7)	±0.0079 (±0.2)	0.16(4.1)	0.24(6.0)	0.63(16.0)	0.17(4.3)	+0.0079 (+0.2) 0(0)	0.028(0.7)
	0.16(4)	0.31(8.0)											
0.0039 (2.5)	0.16(4)	0.26(6.6)	±0.0079 (±0.2)	0.17(4.2)	+0.012(+0.3) -0.0079 (-0.2)	0.091(2.3)	±0.0079 (±0.2)	0.24(6.0)	0.24(6.0)	0.69(17.5)	0.17(4.3)	+0.0079 (+0.2) 0(0)	0.031(0.8)
	0.16(4)	0.33(8.5)											
0.0062 (4.0)	0.16(4.0)	0.37(9.5)	±0.0079 (±0.2)	0.22(5.6)	+0.012(+0.3) -0.0079 (-0.2)	0.134(3.4)	±0.0079 (±0.2)	0.24(6.0)	0.24(6.0)	0.79(20.0)	0.17(4.3)	+0.0079 (+0.2) 0(0)	0.035(0.9)

⚠️ **CAUTION**

- Select the power cable in accordance with relevant local and national regulations.
- Wire size must comply with local and national code.
- Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flixible cord. (Code designation H07RN-F or H05RN-F) • You should connect the power cable into the power cable terminal and fasten it with a clamp.
- The unbalanced power must be maintained within 10 % of supply rating among whole indoor units.
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 10% of supply rating, the indoor unit is protected, stopped and the error mode indicates.
- To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units in conduit.
- You must keep the cable in a protective conduit.
- Keep distances of 2″ (50 mm) or more between power cable and communication cable.
- Maximum length of power cables are decided within 10% of power drop. If it exceeds, you must consider another power supplying method.
- Use round pressure/crimp terminal for connections to the power terminal block.
- For wiring, use the designated power cable and connect it firmly, then secure to prevent outside pressure being exerted on the terminal board.
- Use an appropriate screwdriver for tightening the terminal screws.

    A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.
- See the table below for tightening torque for the terminal screws.

	Tightening torque	
	N•m	lbf•ft
M3.5	0.8~1.2	0.59~0.89
M4	1.2~1.8	0.89~1.33

Wire Diagram

AC018KNZDCH/AA, AC024KNZDCH/AA, AC030KNZDCH/AA, AC036KNZDCH/AA, AC042KNZDCH/AA, AC048KNZDCH/AA, AC054KNZDCH/AA

SAMSUNG
HEATING PRODUCTS
NO HEAT - 61CC0564D

SCHEMATIC DIAGRAM

HPF
ORN = PIN 1
BLK = PIN 2
WHT = PIN 3
BLU = PIN 4
RED = PIN 5

GRN - DEFROST INDOOR BLOWER MOTOR HI SPEED TAP
RED - L1 - 240 VAC TO HC
YEL - L2 - 240 VAC TO HC
BRN - C
BRN - R

NO HEAT

"A" Coil Plate

Room IN Sensor

EVA IN Sensor

EVA OUT Sensor

Wire Colors
BLK - BLACK
BLU - BLUE
BRN - BROWN
GRN - GREEN
ORN - ORANGE
YEL - YELLOW
WHT - WHITE
PRP - PURPLE
PNK - PINK

LEGEND
HPF - 6 PIN HEATER FEMALE PLUG
LFSR - LOW SPEED TAP RELAY
MFSR - MEDIUM FAN SPEED RELAY
MT - MOTOR TERMINAL
ST - BLOWER MOTOR SPEED TAP
TR - TRANSFORMER

EXPLANATION

ERROR	EXPLANATION
E101	NO COMMUNICATION FOR 2 MINUTES BETWEEN INDOOR AND OUTDOOR UNIT
E121	ERROR ON ROOM TEMPERATURE SENSOR OF INDOOR UNIT (SHORT OR OPEN)
E122	ERROR ON EVA IN TEMPERATURE SENSOR OF INDOOR UNIT (SHORT OR OPEN)
E123	ERROR ON EVA OUT TEMPERATURE SENSOR OF INDOOR UNIT (SHORT OR OPEN)
E162	EEPROM ERROR OF MICOM (PHYSICAL PROBLEM OF PARTS/CIRCUIT)
E163	INDOOR UNITS REMOTE CONTROLLER OPTION INPUT IS INCORRECT OR MISSING

LEGEND
BMFP - 9 PIN MOLEX BLOWER MOTOR PLUG ASSEMBLY
BMMP - 9 PIN MALE MOLEX BLOWER MOTOR PLUG
CTBM - CONSTANT TORQUE BLOWER MOTOR
GGS - GREEN GROUND SCREW
GND - GROUND CONNECTION
HFSR - HIGH FAN SPEED RELAY

LADDER DIAGRAM

BMMP
PIN NUMBERS

BLOWER MOTOR

Selecting motor speed

Selecting the Constant Torque Blower Speed

This air handler uses a Constant Torque high efficiency motor. This motor operates on 240 VAC. The motor speed taps are 24 VAC, 0.03 amps, 60 Hz, 1 PH. The speed taps can be adjusted according to installation needs. Table 4 shows the motor lead connection labeling and the connection denitions. See blower tables in later section for airow data.

Total 24 VAC circuit amps are 0.14 amps.

Change Motor Speeds

1. Turn off **all** electrical supply circuits to the air handler at the main service (House Circuit Breaker) panel.
2. Remove the blower door and switch air handler circuit breaker(s) to "OFF".
3. Disconnect the wire from the isolation relay terminal and reconnect the desired wire to the terminal. The RED wire is high speed. The VIOLET wire is mid speed. The GREEN wire is low speed. The ORANGE wire is electric heat high fan speed. The ORANGE wire must be connected to a speed tap that will provide sufficient airflow for the size of the electric heat kit. Refer to the heat kit installation manuals for minimum CFM for electric heat kit activation.
4. Turn the circuit breakers on and reinstall air handler blower door.
5. Turn on all electrical supply circuits to the air handler at the main service (House Circuit Breaker) panel.
6. When black wire(Standard) is required to be connected to tap 5, the orange wire which originally is connected to tap 5 can be connected to any tap except tap 5.
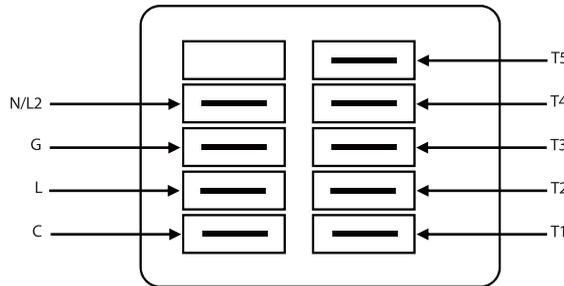
Terminal	Connection	Default speed tap settings					
		AC018KNZDCH/AA	AC024KNZDCH/AA	AC030KNZDCH/AA	AC036/042KNZDCH/AA	AC048KNZDCH/AA	AC054KNZDCH/AA
C	Speed tap common - 24 VAC common						
L	Supply voltage - 240 VAC Line 1						
G	Ground connection						
N/L2	Supply voltage - 240 VAC Line 2						
T1	Low speed tap - 24 VAC input		"Low" speed	"Low" speed	"Low" speed	"Low" speed	"Low" speed
T2	Medium-low speed tap - 24 VAC input	"Low" speed	"Mid" speed	"Mid" speed		"Mid" speed	"Mid" speed
T3	Medium speed tap - 24 VAC input	"Mid" speed		"High" speed	"Mid" speed		
T4	Medium-high speed tap - 24 VAC input	"High" speed	"High" speed		High speed for electric heat	"High" speed	High speed for electric heat
T5	High speed tap - 24 VAC input	High speed for electric heat	High speed for electric heat	High speed for electric heat	"High" speed	High speed for electric heat	"High" speed

Motor control/voltage taps
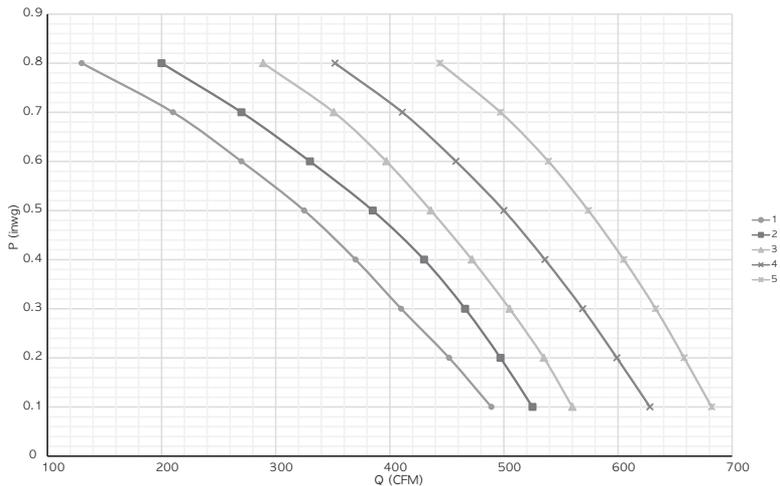
Blower CFM tables

AC018KNZDCH/AA,AC024KNZDCH/AA,AC030KNZDCH/AA,AC036KNZDCH/AA,AC042KNZDCH/AA,AC048KNZDCH/AA,AC054KNZDCH/AA

AC018KNZDCH/AA

HP : 1/3Default motor taps:High / Mid /Low = 4/3/2

Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	489	4	0.1	628
1	0.2	452	4	0.2	599
1	0.3	410	4	0.3	569
1	0.4	370	4	0.4	536
1	0.5	325	4	0.5	500
1	0.6	270	4	0.6	458
1	0.7	210	4	0.7	411
1	0.8	130	4	0.8	352
2	0.1	525	5	0.1	682
2	0.2	497	5	0.2	658
2	0.3	466	5	0.3	633
2	0.4	430	5	0.4	605
2	0.5	385	5	0.5	574
2	0.6	330	5	0.6	539
2	0.7	270	5	0.7	497
2	0.8	200	5	0.8	444
3	0.1	560			
3	0.2	535			
3	0.3	505			
3	0.4	472			
3	0.5	436			
3	0.6	397			
3	0.7	351			
3	0.8	289			

= Default Setting

AC024KNZDCH/AA

HP : 1/3Default motor taps:High / Mid /Low = 4/2/1

Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	561	4	0.1	798
	0.2	527		0.2	771
	0.3	491		0.3	740
	0.4	452		0.4	707
	0.5	410		0.5	671
	0.6	365		0.6	630
	0.7	317		0.7	580
	0.8	262		0.8	530
2	0.1	658	5	0.1	888
	0.2	625		0.2	859
	0.3	589		0.3	831
	0.4	550		0.4	799
	0.5	508		0.5	764
	0.6	462		0.6	723
	0.7	410		0.7	675
	0.8	349		0.8	620
3	0.1	726			
	0.2	695			
	0.3	661			
	0.4	625			
	0.5	586			
	0.6	543			
	0.7	493			
	0.8	435			

= Default Setting

27
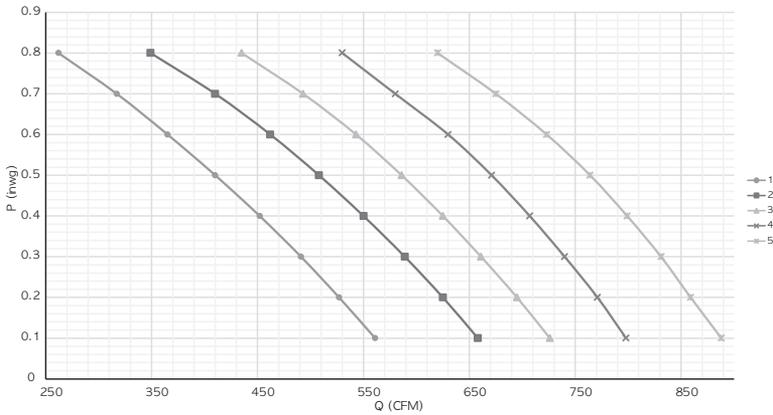
Blower CFM tables

AC030KNZDCH/AA

HP : 1/2Default motor taps:High / Mid /Low = 3/2/1

Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	891	4	0.1	1160
	0.2	848		0.2	1126
	0.25	826		0.25	1109
	0.3	805		0.3	1092
	0.4	758		0.4	1055
	0.5	710		0.5	1019
	0.6	658		0.6	982
	0.7	605		0.7	943
	0.8	547		0.8	904
	0.9	486		0.9	864
	1	419		1	823
2	0.1	987	5	0.1	1314
	0.2	951		0.2	1282
	0.25	932		0.25	1266
	0.3	914		0.3	1251
	0.4	875		0.4	1217
	0.5	834		0.5	1183
	0.6	790		0.6	1149
	0.7	742		0.7	1113
	0.8	690		0.8	1076
	0.9	633		0.9	1039
	1	567		1	1000
3	0.1	1060			
	0.2	1025			
	0.25	1009			
	0.3	990			
	0.4	954			
	0.5	915			
	0.6	875			
	0.7	832			
	0.8	787			
	0.9	737			
	1	684			

= Default Setting

28

AC036KNZDCH/AA

HP : 1/2Default motor taps:High / Mid /
Low = 5/3/1

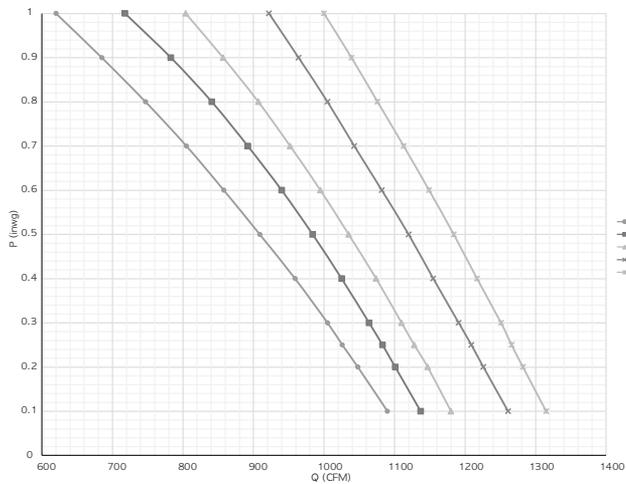| Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	891	4	0.1	1160
	0.2	848		0.2	1126
	0.25	826		0.25	1109
	0.3	805		0.3	1092
	0.4	758		0.4	1055
	0.5	710		0.5	1019
	0.6	658		0.6	982
	0.7	605		0.7	943
	0.8	547		0.8	904
	0.9	486		0.9	864
	1	419		1	823
2	0.1	987	5	0.1	1314
	0.2	951		0.2	1282
	0.25	932		0.25	1266
	0.3	914		0.3	1251
	0.4	875		0.4	1217
	0.5	834		0.5	1183
	0.6	790		0.6	1149
	0.7	742		0.7	1113
	0.8	690		0.8	1076
	0.9	633		0.9	1039
	1	567		1	1000
3	0.1	1060			
	0.2	1025			
	0.25	1009			
	0.3	990			
	0.4	954			
	0.5	915			
	0.6	875			
	0.7	832			
	0.8	787			
	0.9	737			
	1	684			

☐ = Default Setting

29

Blower CFM tables

AC042KNZDCH/AA

HP : 1/2Default motor taps:High / Mid
/Low = 5/3/1

Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	1090	4	0.1	1261
	0.2	1048		0.2	1226
	0.25	1026		0.25	1209
	0.3	1005		0.3	1191
	0.4	959		0.4	1155
	0.5	909		0.5	1120
	0.6	858		0.6	1082
	0.7	805		0.7	1043
	0.8	747		0.8	1005
	0.9	685		0.9	964
	1	620		1	922
2	0.1	1137	5	0.1	1315
	0.2	1101		0.2	1282
	0.25	1083		0.25	1266
	0.3	1064		0.3	1251
	0.4	1025		0.4	1217
	0.5	984		0.5	1184
	0.6	940		0.6	1149
	0.7	892		0.7	1113
	0.8	841		0.8	1076
	0.9	783		0.9	1039
	1	718		1	1000
3	0.1	1180			
	0.2	1147			
	0.25	1128			
	0.3	1110			
	0.4	1074			
	0.5	1035			
	0.6	995			
	0.7	952			
	0.8	907			
	0.9	857			
	1	804			

= Default Setting

AC048KNZDCH/AA

HP : 3/4Default motor taps:High / Mid
/Low = 4/2/1

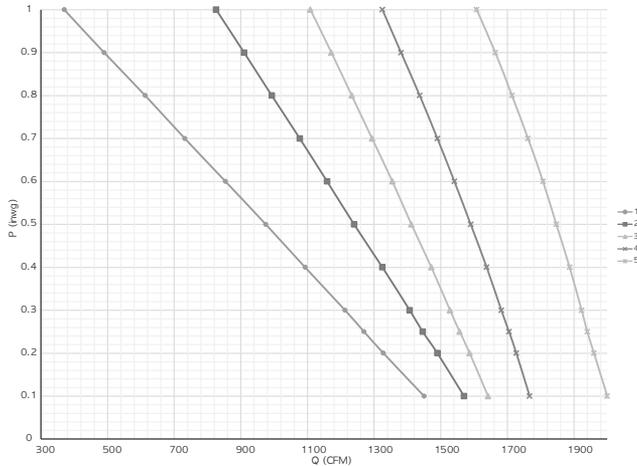| Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	1260	4	0.1	1538
	0.2	1167		0.2	1500
	0.3	1075		0.3	1462
	0.4	981		0.4	1422
	0.5	887		0.5	1379
	0.6	793		0.6	1331
	0.7	699		0.7	1280
	0.8	606		0.8	1224
	0.9	510		0.9	1158
	1	415		1	1078
2	0.1	1379	5	0.1	1739
	0.2	1293		0.2	1705
	0.3	1210		0.3	1670
	0.4	1130		0.4	1633
	0.5	1045		0.5	1597
	0.6	963		0.6	1559
	0.7	878		0.7	1522
	0.8	795		0.8	1485
	0.9	711		0.9	1446
	1	627		1	1406
3	0.1	1475			
	0.2	1410			
	0.3	1348			
	0.4	1282			
	0.5	1216			
	0.6	1148			
	0.7	1076			
	0.8	1003			
	0.9	929			
	1	850			

= Default Setting
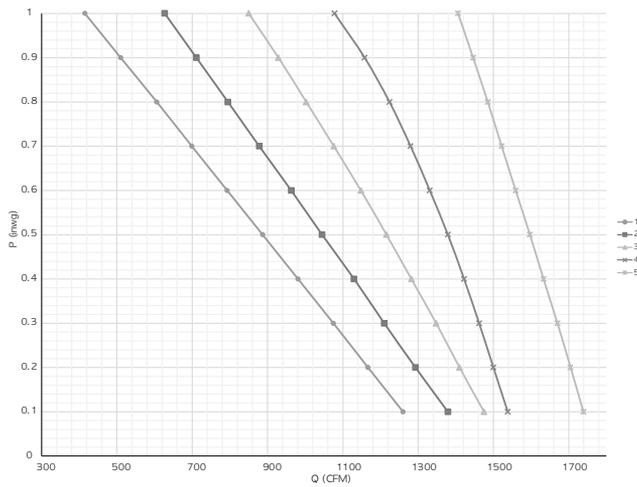
Blower CFM tables

AC054KNZDCH/AA

HP : 3/4Default motor taps:High / Mid
/Low = 5/2/1

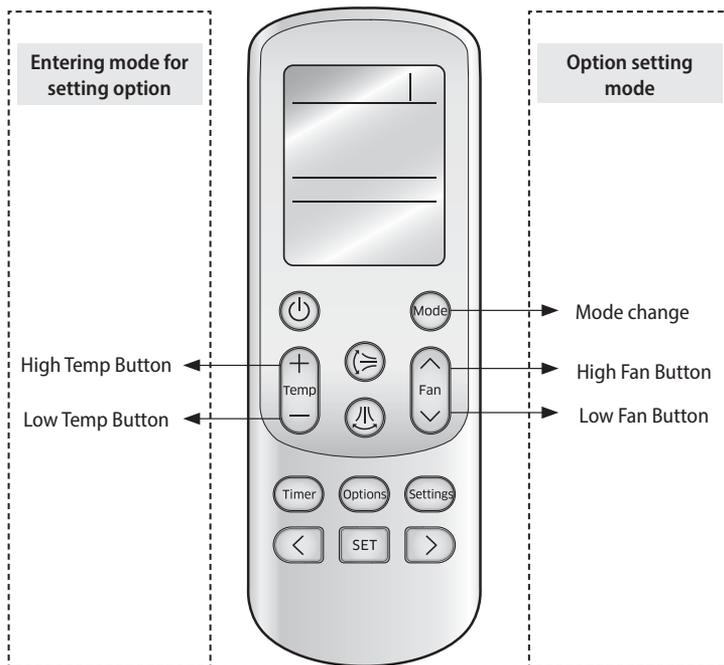| Motor Tap	P(inwg)	CFM	Motor Tap	P(inwg)	CFM
1	0.1	1450	4	0.1	1767
	0.2	1328		0.2	1727
	0.25	1270		0.25	1705
	0.3	1213		0.3	1682
	0.4	1093		0.4	1638
	0.5	975		0.5	1590
	0.6	854		0.6	1541
	0.7	732		0.7	1490
	0.8	613		0.8	1437
	0.9	490		0.9	1381
	1	370		1	1325
2	0.1	1570	5	0.1	2000
	0.2	1490		0.2	1960
	0.25	1446		0.25	1940
	0.3	1407		0.3	1923
	0.4	1325		0.4	1887
	0.5	1240		0.5	1847
	0.6	1159		0.6	1807
	0.7	1077		0.7	1762
	0.8	993		0.8	1714
	0.9	910		0.9	1664
	1	826		1	1608
3	0.1	1642			
	0.2	1587			
	0.25	1557			
	0.3	1528			
	0.4	1472			
	0.5	1412			
	0.6	1355			
	0.7	1294			
	0.8	1233			
	0.9	1172			
	1	1109			

= Default Setting

Setting an indoor unit address and installation option

▶ When receiver kit is installed, you can set option codes with the wireless remote control. Use the proper wireless remote control that can set 24 digit option codes.

The procedure of option setting

Entering mode for setting option

Option setting mode

Mode change

High Temp Button

High Fan Button

Low Temp Button

Low Fan Button

Step 1. Entering mode to set option

1. Remove batteries from the remote controller.

2. Insert batteries and enter the option setting mode while pressing High Temp button and Low Temp button.

3. Check if you have entered the option setting status.

Step 2. The procedure of option setting

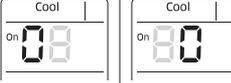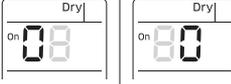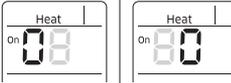After entering the option setting status, select the option as listed below.
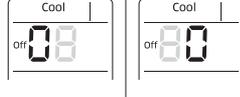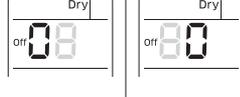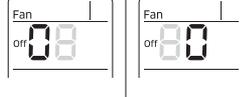
⚠ **CAUTION**

Option setting is available from SEG1 to SEG 24

• SEG1, SEG7, SEG13, SEG19 are not set as page option.

• Set the SEG2~SEG6, SEG8~SEG12 as ON status and SEG14~18, SEG20~24 as OFF status.

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12	On(SEG1~12)	Off(SEG13~24
0	X	X	X	X	X	1	X	X	X	X	X		
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24		
2	X	X	X	X	X	3	X	X	X	X	X		

33

CAC ODM V-AHU_IM_NOTCODE_ENG.indd   33   2016-03-25   오전 10:33:50
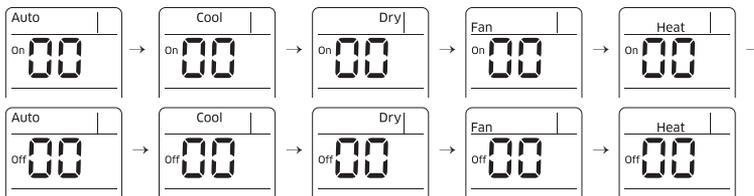
Setting an indoor unit address and installation option

Option setting	Status
1. Setting SEG2, SEG3 option Press Low Fan button (∨) to enter SEG2 value. Press High Fan button (∧) to enter SEG3 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG2 SEG3
2. Setting Cool mode [Mode] Press Mode button to be changed to Cool mode in the ON status.	Cool
3. Setting SEG4, SEG5 option Press Low Fan button (∨) to enter SEG4 value. Press High Fan button (∧) to enter SEG5 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG4 SEG5
4. Setting Dry mode [Mode] Press Mode button to be changed to DRY mode in the ON status.	Dry
5. Setting SEG6, SEG8 option Press Low Fan button (∨) to enter SEG6 value. Press High Fan button (∧) to enter SEG8 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG6 SEG8
6. Setting Fan mode [Mode] Press Mode button to be changed to FAN mode in the ON status.	Fan
7. Setting SEG9, SEG10 option Press Low Fan button (∨) to enter SEG9 value. Press High Fan button (∧) to enter SEG10 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG9 SEG10
8. Setting Heat mode [Mode] Press Mode button to be changed to HEAT mode in the ON status.	Heat
9. Setting SEG11, SEG12 option Press Low Fan button (∨) to enter SEG11 value. Press High Fan button (∧) to enter SEG12 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG11 SEG12
10. Setting Auto mode [Mode] Press Mode button to be changed to AUTO mode in the OFF status.	Auto
11. Setting SEG14, SEG15 option Press Low Fan button (∨) to enter SEG14 value. Press High Fan button (∧) to enter SEG15 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	SEG14 SEG15
12. Setting Cool mode [Mode] Press Mode button to be change to Cool mode in the OFF status.	Cool
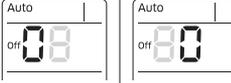
Option setting	Status
13. Setting SEG16, SEG17 option Press Low Fan button(∨) to enter SEG16 value. Press High Fan button(∧) to enter SEG17 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	Cool / Off — SEG16 Cool / Off — SEG17
14. Setting Dry mode ⬚Mode Press Mode button to be change to Dry mode in the OFF status.	Dry / Off
15. Setting SEG18, SEG20 option Press Low Fan button(∨) to enter SEG18 value. Press High Fan button(∧) to enter SEG20 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	Dry / Off — SEG18 Dry / Off — SEG20
16. Setting Fan mode ⬚Mode Press Mode button to be change to Fan mode in the OFF status.	Fan / Off
17. Setting SEG21, SEG22 option Press Low Fan button(∨) to enter SEG21 value. Press High Fan button(∧) to enter SEG22 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	Fan / Off — SEG21 Fan / Off — SEG22
18. Setting Heat mode ⬚Mode Press Mode button to be change to HEAT mode in the OFF status.	Heat / Off
19. Setting SEG23, SEG24 mode Press Low Fan button(∨) to enter SEG23 value. Press High Fan button(∧) to enter SEG24 value. Each time you press the button, 0 → 1 → … E → F will be selected in rotation.	Heat / Off — SEG23 Heat / Off — SEG24
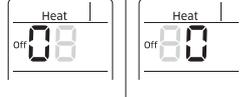
Step 3. Check the option you have set

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

Auto / On → Cool / On → Dry / On → Fan / On → Heat / On →

Auto / Off → Cool / Off → Dry / Off → Fan / Off → Heat / Off

Step 4. Input option

Press operation button ⬚ pointing towards receiver kit to enter new option code.
For the correct option setting, you must press operation button twice.

Step 5. Check operation

1. Reset indoor unit after option code programming by cycling power at the outdoor unit. Leave power of for 5mins before cycling power back on.
2. Take the batteries out of the wireless remote controller and re-insert them to exit out of option code programming mode. Press operation button to turn unit back on.

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

Setting an indoor unit address and installation option

Setting an indoor unit address (MAIN/RMC)

1. Check whether power is supplied or not.
   - When the indoor unit is not plugged in, there should be additional power supply in the indoor unit.
2. The receiver kit should be connected to an indoor unit to receive option.
3. Before installing the indoor unit, assign an address to the indoor unit according to the air conditioning system plan.
4. Assign an indoor unit address by wireless remote controller.
   - The initial setting status of indoor unit ADDRESS(MAIN/RMC) is "0A0000-100000-200000-300000".
   - There is no need to assign extra ADDRESS for 1:1 installation between indoor unit and outdoor unit.
   - Main address will be set automatically and manual address setting will be only available when outdoor unit option status is set as 'Manual address'
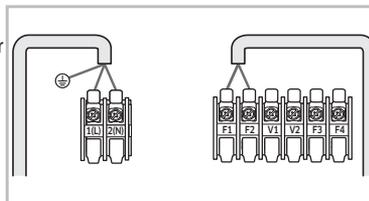
Option No. : 0AXXXX-1XXXXX-2XXXXX-3XXXXX

Option	SEG1		SEG2		SEG3		SEG4	SEG5	SEG6	
Explanation	PAGE		MODE		Setting Main address				The unit digit of an indoor unit	
Remote Controller Display			Auto / On		Auto / On		RESERVED	RESERVED	Dry / On	
Indication and Details	Indication	Details	Indication	Details	Indication	Details			Indication	Details
	0		A		0	No Main address			0~3	A single digit
					1	Main address setting mode				

Option	SEG7		SEG8	SEG9		SEG10	SEG11		SEG12	
Explanation	PAGE			Setting RMC address			Group channel(*16)		Group address	
Remote Controller Display				Fan / On			Heat / On		Heat / On	
Indication and Details	Indication	Details	RESERVED	Indication	Details	RESERVED	Indication	Details	Indication	Details
	1			0	No RMC address		RMC1	0~2	RMC2	0~F
				1	RMC address setting mode					

⚠ **CAUTION**
- You can set the Main address from 0~3 range and if you input other numbers, 'communication error' will occur.
- When "A"~"F" is entered to SEG5~6, the indoor unit MAIN ADDRESS is not changed.
- If you set the SEG 3 as 0, the indoor unit will maintain the previous MAIN ADDRESS even if you input the option value of SEG5~6.
- If you set the SEG 9 as 0, the indoor unit will maintain previous RMC ADDRESS even if you input the option value of SEG11~12.

Setting the indoor unit option code

In order to set the indoor unit option code use the wired remote controller and follow the directions below.

Data bit

Main Menu Sub-menu 1 2 3 4 5 6

Page number ─ Option Code

1 2 3 4 5 6
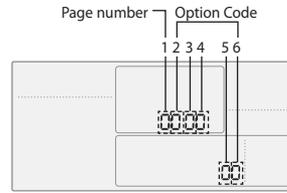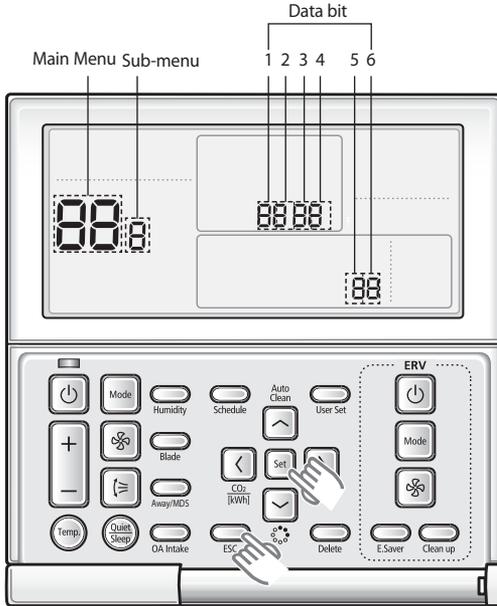
SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	✳	✳	✳	✳	✳

Page number

SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	✳	✳	✳	✳	✳

Page number

SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	✳	✳	✳	✳	✳

Page number

SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	✳	✳	✳	✳	✳

Page number

Press the ⌑ and ⌑ buttons at the same time for more than 3 seconds and then a Main menu will be displayed.

1. Press the ⌃ / ⌄ button to select 4 and then press ⟩ button to enter a Sub-menu setting screen.

2. Press the ⌃ / ⌄ button to select 2 and then press ⟩ button to enter a Indoor unit option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are option codes.
- The option code which is currently setting will flicker.

3. Press the ⌃ / ⌄ button to set the option code in order. Press ⟩ button to go to the next page.

4. Press the Set button to save and complete the option setting.

5. Press the ESC button to exit to normal mode.

NOTE Press the ESC button anytime during setup to exit without setting.

⚠ CAUTION
- Option code will not be applied if you don't press the Set
- Setting indoor unit option code is only possible in Master wired remote controller. You can only check the indoor unit option code in Slave wired remote controller.
- Setting indoor unit option code is possible when one indoor unit is connected. If more than 2 indoor units are connected, you can only check the Master indoor unit option code.

Setting an indoor unit address and installation option

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

Setting an indoor unit address

1. Press the [Set] and [ESC] buttons at the same time for more than 3 seconds and then a Main menu will be displayed.
2. Press the [∧] / [∨] button to select 4 and then press [〉] button to enter a Sub-menu setting screen.
3. Press the [∧] / [∨] button to select 1 and then press [↲] button to enter a Indoor unit option code setting screen.

Data bit
1 2 3 4   5 6
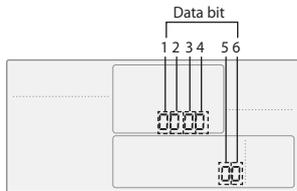
NOTE
- The Main/RMC Address which is currently setting will flicker.
- Data bit 1 and 2 present Indoor unit main address checking.
- Data bit 3 and 4 present Indoor unit main address setting(outdoor unit reset is needed to set).

5. Press the [∧] / [∨] button to set the Indoor unit Main/RMC Address.
6. Press the [Set] button to save and complete the option setting.
7. Press the [ESC] button to exit to normal mode.

NOTE
- Press the [ESC] button to save and complete the option setting.
- Address will not be applied if you don't press [Set] button.
- Setting Main/RMC Address of an Indoor unit is available only with a master wired remote controller.

Setting an indoor unit installation option

In order to check and set the indoor unit installation option code use the wired remote controller and follow the directions below.

1. Press the [Set] and [ESC] buttons at the same time for more than 3 seconds and then a Main menu will be displayed.

2. Press the [∧] / [∨] button to select 4 and then press [›] button to enter a Sub-menu setting screen.

3. Press the [∧] / [∨] button to select 3 and then press [›] button to enter a Indoor unit installation option code setting screen.

NOTE
- The first digit represents the page number and the remaining five digits are installation option.
- The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number (0, 1, 2, 3).

4. Press the [∧] / [∨] button to set the installation option code in order. Press [›] button to go to the next page.

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	2	RESERVED	Exterior temperature sensor	Central control	RESERVED
SEG7	**SEG8**	**SEG9**	**SEG10**	**SEG11**	**SEG12**
1	RESERVED	RESERVED	Use of Heater	RESERVED	Master / Slave
SEG13	**SEG14**	**SEG15**	**SEG16**	**SEG17**	**SEG18**
2	External control	External control output	RESERVED	Buzzer	RESERVED
SEG19	**SEG20**	**SEG21**	**SEG22**	**SEG23**	**-**
3	Individual control of a remote controller	Heating setting compensation	RESERVED	RESERVED	-

Setting an indoor unit address and installation option

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

Option	SEG1		SEG2		SEG3	SEG4		SEG5		SEG6
Explanation	PAGE		MODE		RESERVED	Use of external temperature sensor		Use of central control		RESERVED
Indication and Details	Indication	Details	Indication	Details		Indication	Details	Indication	Details	
	0		2			0	Disuse	0	Disuse	
						1	Use	1	Use	

Option	SEG7		SEG8	SEG9	SEG10		SEG11	SEG12	
Explanation	PAGE				Use of Heater			Master / Slave	
Indication and Details	Indication	Details	RESERVED	RESERVED	Indication	Details	RESERVED	Indication	Details
	1				0	Disuse		0	slave
					1	Use		1	master
								-	-

Option	SEG13		SEG14		SEG15		SEG16	SEG17		SEG18
Explanation	PAGE		Use of external control		Setting the output of external control			Buzzer control		
Indication and Details	Indication	Details	Indication	Details	Indication	Details	RESERVED	Indication	Details	RESERVED
	2		0	Disuse	0	Thermo on		0	Use of buzzer	
			1	ON/OFF Control	1	Operation on		1	Non use of buzzer	
			2	OFF Control						
			3	WINDOW ON/OFF Control						

Option	SEG19		SEG20		SEG21		SEG22	SEG23	-
Explanation	PAGE		control of a remote controller		Heating setting compensation				-
Indication and Details	Indication	Details	Indication	Details	Indication	Details	RESERVED	RESERVED	-
	3		0 or 1	Indoor 1	0	Disuse			-
			2	Indoor 2	1	2℃			
			3	Indoor 3	2	5℃			-
			4	Indoor 4					

5. Press the [Set] button to save and complete the option setting.

6. Press the [ESC] button to exit to normal mode.

NOTE
- Press [ESC] button anytime during setup to exit without setting.
- Option code will not be applied if you don't press [Set] button.
- Setting Installation option code is available only with a master wired remote controller.
- Setting Installation option code is available when there is one on one connection between a wired remote controller and an indoor unit.

Troubleshooting

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

LED Display on the receiver & display unit

Abnormal conditions	Indicators					Remarks
	Concealed Type GREEN / Standard Type	Concealed Type RED / Standard Type	(clock)	(fan)	(grid)	
Power reset	◑	X	X	X	X	
Error of Room sensor in the indoor unit(Open/Short)	X	X	◑	X	X	
Error of EVA-IN,EVA-OUT discharge sensor in the indoor unit(Open/Short)	◑	X	◑	X	X	
Error of Fan motor in the indoor unit	X	X	X	◑	X	
1. Error of Outdoor 2. Thermal Fuse Open Error of Indoor's Terminal Block	X	X	◑	◑	◑	
1. Clogging of outdoor's service valve 2. the refrigerant leakage	◑	X	X	◑	◑	
Detection of the float switch	X	X	X	◑	◑	
1. Error of EEPROM 2. Error of Option setting	◑	◑	◑	◑	◑	
1. Error of Outdoor Temp. sensor 2. Error of Cond Temp. sensor 3. Error of discharge Temp. sensor	◑	X	X	◑	X	

Troubleshooting

Abnormal conditions	Indicators					Remarks
	Concealed Type GREEN RED Standard Type					
1. No communication for 2 minutes between indoor units (Communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minutes error 4. When sending the communication error from the outdoor unit, the mismatching of the communication numbers and installed numbers after completion of tracking.(Communication error for more than 2 minutes)	✕	✕	◑	◑	✕	1. Indoor unit error (Display is unrelated with operation) 2. Outdoor unit error (Display is unrelated with operation)

● On   ◑ Flickering   ✕ Off

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

Wired remote controller

If an error occurs, ⚟ is displayed on the wired remote controller. If you would like to see an error code, press the Test button.

| Error mode	Contents	Error type
101	Indoor unit communication error	Communication error
108	Duplicated address setting error	Communication error
109	No response error address from indoor unit	Communication error
121	Indoor temperature sensor (open/short error)	Indoor sensor error
122	Indoor unit Eva In sensor (Open/Short)	Indoor sensor error
123	Indoor unit Eva Out sensor (Open/Short)	Indoor sensor error
162	EEPROM error (Hardware)	Indoor EEPROM error
163	EEPROM option error	Indoor EEPROM error
198	Error on thermal fuse of indoor unit (Open)	Indoor Terminal Block error
202	Indoor/outdoor communication error (1 min)	Communication error
203	Communication error between indoor/outdoor INV↔MAIN MICOM (1 min)	Communication error
221	Outdoor temperature sensor error	Outdoor sensor error
231	COND temperature sensor error	Outdoor sensor error
251	[Inverter] Emission temperature sensor error	Outdoor sensor error
403	Detection of Indoor Freezing (when Comp. Stops)	Outdoor unit protection control error
404	Protection of Outdoor Overload (when Comp. Stops)	Outdoor unit protection control error
416	Emission temperature excessively high	Outdoor unit protection control error
422	High pressure blockage error (Refrigerant completely Leakage error)	Self diagnostic error
440	Heating operation blocked	Self diagnostic error
441	Cooling operation blocked	Self diagnostic error
458	Outdoor fan 1 error	Self diagnostic error

Error mode	Contents	Error type
461	[Inverter] Compressor startup error	Outdoor unit protection control error
462	[Inverter] Total current error/PFC over current error	Outdoor unit protection control error
463	OLP Overheat and Comp. Stop	Outdoor unit protection control error
464	[Inverter] IPM over current error	Outdoor unit protection control error
465	Compressor V limit error	Outdoor unit protection control error
466	DC LINK over/low voltage error	Outdoor unit protection control error
467	[Inverter] Compressor rotation error	Outdoor unit protection control error
468	[Inverter] Current sensor error	Outdoor unit protection control error
469	[Inverter] DC LINK voltage sensor error	Outdoor unit protection control error
470	EEPROM Read/Write error	Outdoor unit protection control error
471	[Inverter] OTP error	Outdoor unit protection control error
472	AC ZERO CROSSING SIGNAL OUT error	Outdoor unit protection control error
473	Compressor LOCK error	Outdoor unit protection control error
475	Outdoor fan 2 error	Self diagnostic error
500	IPM Overheat Error for Outdoor Unit Inverter Comp.	Outdoor unit protection control error
554	Gas leak error	Self diagnostic error
556	Capacities not matched	Outdoor unit protection control error
601	Communication error between the indoor unit and wired remote controller	Wired remote controller error
602	Communication error between the Master and Slave wired remote controllers	Wired remote controller error

44

⚠️ **CAUTION** Do not install the electronic heater in the external supply duct connected to the AHU.

Electronic heater should not be installed.

Discharge side   Suction side

Air Flow

Indoor unit
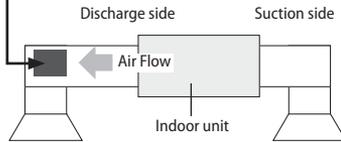
Final Checks and User Tips

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

Check the followings.

• Strength of the installation site

• Tightness of pipe connection to detect a gas leak

• Electric wiring connections

• Heat-resistant insulation of the pipe

• Drainage

• Earth conductor connection

Providing information for user

After finishing the installation of the air conditioner, you should explain the following to the user. Refer to appropriate pages in the User's Manual.

1. How to start and stop the air conditioner

2. How to select the modes and functions

3. How to adjust the temperature and fan speed

4. How to set the timers

5. How to clean and replace the filters

📄 **NOTE** When you complete the installation successfully, hand over the this Installation Manual and the wired controller installation and user manuals to the user for storage in a handy and safe place.