Mini-Split
Installation manual

3WMD***S6-1P

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

LENNOX Powered by SAMSUNG

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Safety Information

California Proposition 65 Warning (US)

⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

IMPORTANT – This product has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency when matched with appropriate coil components.

However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency.

Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions.

Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.

⚠ WARNING

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

⚠ CAUTION

- Hazards or unsafe practices that may result in minor personal injury or property damage.
- Carefully follow the precautions listed below because they are essential to guarantee the safety of the equipment.

⚠ WARNING

- Always disconnect the mini-split 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 mini-split is not installed in an easily accessible area.

Symbol	Meaning
	Flammable gas
	Flammable materials
Refrigerant Safety Group A2L	Refrigerant safety group

	Read operating manual
	Refer to operating manual
	Read service manual

⚠ WARNING

The installation and testing of this appliance must be performed by a qualified technician.

- The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe installation of the appliance.

Always install the mini-split in compliance with current local, state, and federal safety standards.

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

General information

⚠ WARNING

- Carefully read the content of this manual before installing the mini-split and store the manual in a safe place to be able to use it as a 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 mini-split is sold or transferred.
- This manual explains how to install an indoor unit with a split system with two Lennox 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 electricity and requirements outlined in the "Operating limits" table, included in the manual, shall immediately invalidate the warranty.

Safety Information

- All pipe work including piping material, pipe routing, and installation shall include protection from physical damage in operation and service and comply with national and local codes and standards, such as ASHRAE 15, ASHRAE 15.2, IAPMO Uniform Mechanical Code, ICC International Mechanical Code, or CSA B52. Any field joints shall be accessible for inspection before being covered or enclosed.
- The mini-split 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.
- To prevent electric shocks, fires or injuries, always stop the unit, disable the protection switch and contact Lennox's technical support if the unit produces smoke, if the power cable is hot or damaged or if the unit is very noisy.
- 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.
- The mini-split contains a refrigerant that has to be disposed of as special waste. At the end of its life cycle, the mini-split must be disposed of in authorized centers 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 work. Installation/repair technicians may be injured if improper protective equipment is worn.
- This unit is a partial unit mini-split, complying with partial unit requirements of this International Standard, and must only be connected to other units that have been confirmed as complying with corresponding partial unit requirements of this International Standard.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.
  Children should be supervised to ensure that they do not play with the appliance.

Installing the unit

⚠ WARNING

IMPORTANT: When installing the unit, always remember to connect first the refrigerant tubes, and then the electrical lines.

- Always disassemble the electric lines before the refrigerant tubes.
- Upon receipt, inspect the product to verify that it has not been damaged during transport. If the product appears damaged, DO NOT INSTALL it, and immediately report the damage to the carrier or retailer (if the installer or the authorized technician has collected the material from the retailer.)
- After completing the installation, always carry out a functional test and provide instructions on how to operate the mini-split to the user.
- Do not use the mini-split in environments with hazardous substances or close to equipment that releases free flames to avoid the occurrence of fires, explosions or injuries.
- Do not install the product on a ship or a vehicle (such as a campervan). Salt, vibration or other environmental factors may cause the product to 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 over electronic equipment or other sensitive instruments.
- Our units must be installed in compliance with the space specifications presented in the installation manual to ensure accessibility from both sides and allow repairs or maintenance operations to be carried out.
  The unit's components must be accessible and easy to disassemble without endangering people and objects.
- For this reason, where it is not observed as indicated in the Installation Manual, the cost necessary to reach and repair the unit (safely as required by local regulations) with slings, trucks, scaffolding or any other means of elevation won't be considered in warranty and charged to end user.
- If any gas or impurities, except R-32 refrigerant, come

into the refrigerant pipe, a serious problem may occur and it may cause injury.
Use the supplied accessories, specified components and tools for the installation.
  – Do not use the pipe and the installation product used for the R-22, R-410A refrigerant.
  – Failure to use the specified components can cause the product to fall, water leakage, electrical shock, and fire. (The pipe and flare components used for R-22, R-410A refrigerant must not be used)

Power supply line, fuse or circuit breaker

⚠ WARNING

- Always make sure that the power supply is compliant with current safety standards. Always install the mini-split 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 mini-split is connected to the power supply following 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 mini-splits.
- Devices disconnected from the power supply should be completely disconnected in the condition of overvoltage category.

⚠ CAUTION

Make sure that you ground the cables.

- Do not connect the ground wire to the gas pipe, water pipe, lightning rod, or telephone wire. If the grounding 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 3.3ft (1m) away from the electric appliance.

Install the indoor unit away from a lighting apparatus using the ballast.

- If you use the wireless controller, reception error may occur due to the ballast of the lighting apparatus.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons to avoid a hazard.

Do not use the indoor unit for the preservation of food items, plants, equipment, and artwork.
This may cause deterioration of their quality.

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

Precautions for using R-32 refrigerant

General

- This product is pre-charged with mildly flammable gas classified as A2L by ASHRAE. The following precautions and instruction manuals must be followed during installation, operation, servicing and decommissioning of the product.
- The appliance shall be stored in a room without continuously operating ignition sources, like open flames, a gas appliance, or an electric heater.
- All national and local regulations shall be observed at all times.
- All pipe work including piping material, pipe routing and installation shall include protection from physical damage in operation and service, and comply national and local codes and standards, such as ASHRAE 15, ASHRAE 15.2, IAPMO Uniform Mechanical Code, ICC International Mechanical Code, or CSA B52. All filed joints shall be accessible for inspection before being covered or enclosed.
- All field piping and joints shall be pressure tested with an inert gas according to prevalent industry standards prior to refrigerant charging and system commissioning.
- Where additional field charging is required. The installer shall write with a permanent marker the field charge

Safety Information

added on the ODU label provided, such that the Total Charge = Factory 'Pre-charge' + field charge.

- Minimum floor area of the room shall be in compliance with the min. room area according to the total charge of the installation according to Table 1.
- For ducted systems, any auxiliary systems that are potential ignition sources shall not be installed in the duct work. Examples of ignition sources are hot surfaces with temperatures exceeding 1 300 °F (700 °C) and electric switching devices.
- Any auxiliary device installed must be approved by Lennox and must be suitable for operating with the refrigerant marked on the label.
- For mechanical ventilation the lower edge of the air extraction opening shall not be more than 3.9 inch (100mm) above the floor. The exhaust location outside the building must be at least 9.8ft (3m) away from the building opening and mechanical air intake openings.
- To handle, purge, and dispose of the refrigerant, or break into the refrigerant circuit, the worker should have a certificate from an industry-accredited authority.
- Non-ducted systems may be installed in the areas such as false ceilings not being used as return air plenum as long as the conditioned air does not mix with the air in the false ceilings.
- For ducted appliances false ceilings or drop ceilings may be used as return air plenum if a refrigerant leak detection system is provided in the system and any external connections are also provided with a sensor immediately below the return air plenum duct joint.
- Installation, servicing and any type of maintenance or repair must be performed by certified personnel that is competent to carry such activity in accordance with national and local regulations.

General Information on Servicing

- Do not work in a confined space. Ensure adequate ventilation is provided at the workspace during the entirety of the duration of the work to safely disperse any released refrigerant.
- All maintenance staff and others working in the local area shall be instructed on the nature of the work being performed and instructed to follow all instructions provided by Lennox, national and local authorities.
- The area shall be checked with an approved refrigerant detector before and during any work on the system.
- Have a dry CO_2 fire extinguisher adjacent to the charging area and workspace.
- The service personnel shall not use any ignition sources in a manner that it may lead to the risk of fire or explosion.
- Potential ignition sources shall be kept away from the work area where the flammable refrigerant can be released into the surrounding area.
- The work area should be checked to ensure that there are no flammable hazards or ignition risks. The "No Smoking" sign shall be attached.
- Under no circumstances shall potential sources of ignition be used upon detection of leakage.

The following checks shall be applied to installations and maintenance operations.

- The actual total refrigerant charge is in accordance with the room size in accordance with Table 1.
- The ventilation machinery and outlets are operating adequately and are not obstructed.
- Markings on the equipment are visible and legible.
- Refrigerant pipes or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components.

Initial checks of electrical devices shall include the following.

- That capacitors are discharged in a safe manner to avoid sparking.
- That no live electrical components and wiring are exposed while charging, recovering or purging the system.
- That there is continuity to earth bonding.
- Check that cabling is not worn, corroded or damaged in any manner.

Electrical repair safety measures

- All electrical components used or replaced must be to Lennox's specifications.
- If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.
- Sealed electrical components and intrinsically safe components shall be replaced and not repaired.
- Cabling should be protected from excessive vibration, pressure, sharp edges, and other adverse environmental factors.

Detection of flammable refrigerants

- Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
- Make sure that the detector is not a potential source of ignition.
- Leak detection equipment shall be set at a percentage of the LFL (Lower flammable limit) of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25% maximum) is confirmed.
- The use of detergents containing chlorine shall be avoided for cleaning because the chlorine may react with the refrigerant and corrode the piping.
- If leakage is suspected, naked flames shall be removed.
- If a leakage is found while brazing, the entire refrigerant shall be recovered from the product or isolated (e.g. using shut-off valves). It shall not be directly released into the environment. Oxygen-free nitrogen (OFN) shall be used for purging the system before and during the brazing process.
- The work area shall be checked with an appropriate refrigerant detector before and during work.
- Ensure that the leakage detector is appropriate for use with flammable refrigerants.

Removal and Evacuation

- When removing refrigerant for servicing it is recommended to remove the entire quantity.
- When removing refrigerant follow local and national regulations and follow best practices including;
  - evacuate;
  - purge the circuit with inert gas (optional for A2L);
  - evacuate (optional for A2L);
  - continuously flush or purge with inert gas when using flame to open circuit; and
  - open the circuit.
- Use proper recovery cylinders appropriate for the type of refrigerant.
- Follow prescribed industry best practices for purging and evacuation.
- Oxygen free nitrogen shall be used for purging the system.

Charging procedure

- Follow industry standard refrigerant charging best practices.
- Prior to recharging the system shall be pressure tested with oxygen free nitrogen gas.
- Ensure that contamination of different refrigerants does not occur when charging.
- Cylinders shall be kept in appropriate position as per instructions.
- The refrigerant system should be earthed prior to charging the system.
- Label the system when charging is completed.
- Take extreme care not to overfill the refrigeration system.
- The system shall be leak tested on completion of charging prior to commissioning.

Decommissioning

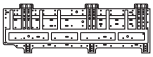
- Only qualified licensed professionals shall perform refrigerant recovery and decommissioning.
- Isolate the system electrically.
- All recovery equipment and cylinders shall conform to appropriate standards. Only approved cylinders, with pressure relief valves, for the type of refrigerant shall be used.
- Recover refrigerant following industry standard procedure for flammable refrigerants.
- When draining compressors oil care must be taken that there is no flammable refrigerant in the compressor and that the compressor is not hot. Oil should be handled according to local and federal regulations.
- After decommissioning, the system shall be labeled stating that it has been decommissioned. The label shall be dated and signed. The label should state that it “contains flammable refrigerant”.
- Ensure that there are labels on the equipment indicating the equipment contains flammable refrigerant.
- Recovered refrigerant shall not be mixed or reused. It shall be processed according to national, state and local regulations.

Installation Procedure

Step 1 Checking and preparing accessories and tools

Accessories

Accessories in the indoor unit package

User Manual (1)	Installation Manual (1)
Installation plate (1)	**Controller (1)**
	

Tools

General tools

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

Tools for test operation

- Thermometer
- Resistance meter
- Electroscope

Step 2 Choosing the installation location

Installation location requirements

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a ceiling that can support its weight.
- Maintain sufficient clearance around the indoor unit.
- Before installing the indoor unit, be sure to check whether the chosen location is well-drained.
- 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.

⚠ WARNING

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

<Table 1>

m [lbs(kg)]	Minimum required room area [A, ft²(m²)]
	Reference Height [h_o, ft(m)]
	Wall-mounted (without R-32 sensor)
	5.91(1.8)
≤ 4.047(1.836)	No requirement
4.049(1.837)	71.8(6.67)
4.18(1.9)	74.3(6.90)
4.40(2.0)	78.2(7.26)
4.85(2.2)	86.0(7.99)
5.29(2.4)	93.8(8.71)
5.73(2.6)	102(9.44)
6.17(2.8)	109(10.2)
6.61(3.0)	117(10.9)
7.05(3.2)	125(11.6)
7.49(3.4)	133(12.3)
7.93(3.6)	141(13.1)
8.37(3.8)	149(13.8)
8.81(4.0)	164(15.3)
9.25(4.2)	181(16.8)
9.70(4.4)	199(18.5)

  - m : Total refrigerant charge in the system
  - A : Minimum required floor area
  - Calculated in accordance with UL 60335-2-40 Annex GG
- IMPORTANT: It's mandatory to either follow the table above or follow the federal, state, and/or local regulations regarding the minimum room area allowed for the total refrigerant charge in the system.
- The actual refrigerant charge shall be per the room size within which the refrigerant-containing parts are installed.
- The ventilation machinery and outlets shall be operating adequately and not obstructed.
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
- Marking the equipment shall continue to be visible and legible. Markings and signs that are illegible shall be corrected.
- Refrigerating pipes or components shall be installed in a position where they are unlikely to be exposed to any substance that may corrode refrigerant-containing components unless the components are constructed of materials that are inherently resistant to being corroded or are suitably protected against being so corroded.

⚠ CAUTION

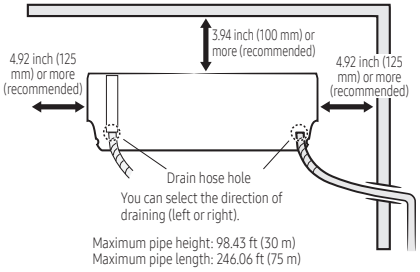
- As a rule, the unit cannot be installed at a height of less that 5.91 ft (1.8 m).
- If you install a cassette type indoor unit on the ceiling when temperature is over 80.6°F (27°C) and humidity is over 80%, you must apply an extra 0.39inch (10mm) thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.

Do not install the mini-split 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 be reduced or the mini-split may be out of order.
- A place exposed to mineral oil, oil vapor or a 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 is generated from the vent pipe or air outlet.
- The copper pipe or connection pipe may corrode, and the refrigerant may leak.
- The place where there is a machine that generates electromagnetic waves. The mini-split may not operate normally due to the control system.
- The place where there is a danger of existing combustible gas, carbon fiber or flammable dust.
- The place that thinner or gasoline is handled. Gas may leak and it may cause fire.
- The place that is close to heat sources.
- Do not use the indoor unit for the preservation of food items, plants, equipment, and artwork. This may cause deterioration of their quality.
- Do not install the indoor unit if it has any drainage problems.

Installation Procedure

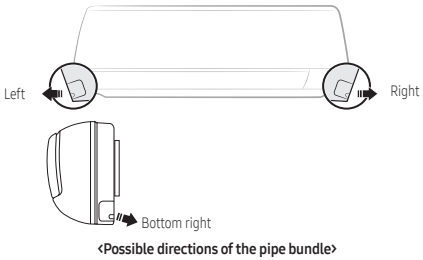
Overview of installation location requirements



Step 3 Drilling a hole through the wall

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

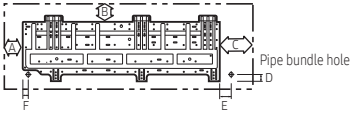
1 Determine the position of a 2.56 inch (65 mm) hole in consideration of the possible directions of the pipe bundle and the minimum distances between the hole and the installation plate.



<Possible directions of the pipe bundle>

⚠ CAUTION

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



<Minimum distances between the hole and the installation plate>

Unit : inch (mm)

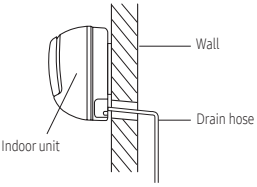
A	B	C	D	E	F
6.14 (156)	2.64 (67)	14.33 (364)	1.36 (34.5)	2.54 (64.5)	0.77 (19.5)

Pipe bundle hole: Ø 2.56 inch (65 mm)

2 Drill the hole.

⚠ CAUTION

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



<The hole slants downwards>

Step 4 Fixing the installation plate

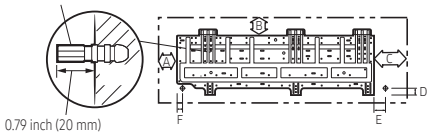
You can install the indoor unit on a wall, window frame, or gypsum board.

⚠ WARNING

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

When fixing the indoor unit on a wall

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



Unit : inch (mm)

A	B	C	D	E	F
6.14 (156)	2.64 (67)	14.33 (364)	1.36 (34.5)	2.54 (64.5)	0.77 (19.5)

Pipe bundle hole: Ø 2.56 inch (65 mm)

NOTE

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

When fixing the indoor unit on a window frame

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

When fixing the indoor unit on a gypsum board

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

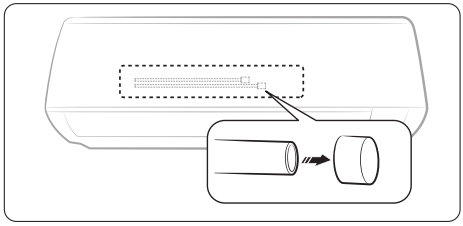
⚠ CAUTION

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

Step 5 Purging the unit

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

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



NOTE

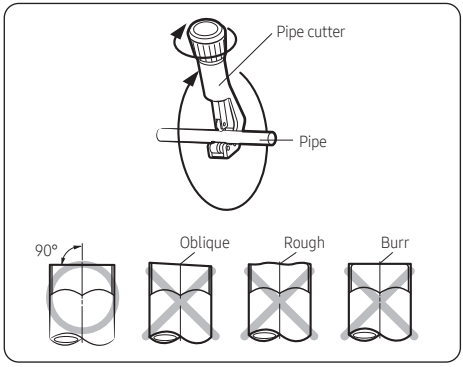
- To prevent dirt or foreign substances from getting into the pipes during installation, do NOT remove the caps completely until you are ready to connect the pipes.

Installation Procedure

Step 6 Cutting or flaring the pipes

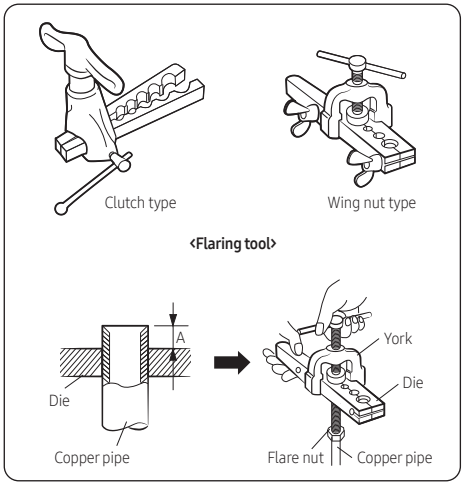
1 Make sure that you prepared the required tools. (pipe cutter, reamer, flaring tool and pipe holder)

2 If you want to shorten the pipe, cut it using a pipe cutter ensuring that the cut edge remains at 90° with the side of the pipe. There are some examples of correctly and incorrectly cut edges below.



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

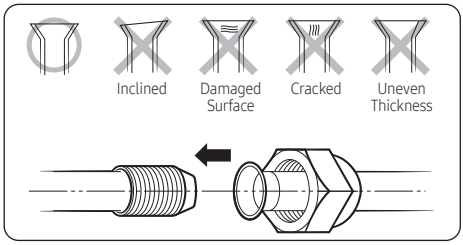
4 Carry out flaring work using flaring tool as shown below.



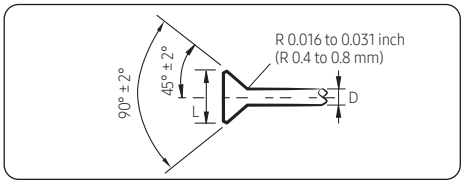
(Unit: inch (mm))

Outer diameter	A		
	Flare tool for R-32 clutch type	Conventional flare tool	
		Clutch type	Wing nut type
Ø1/4 (6.35)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø3/8 (9.52)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø1/2 (12.70)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)
Ø5/8 (15.88)	0~0.02 (0~0.5)	0.04~0.06 (1.0~1.5)	0.06~0.08 (1.5~2.0)

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



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



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

⚠ CAUTION

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

Step 7 Connecting the refrigerant pipe

Connect 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), Operating pressure depends on outdoor unit specifications. Check the outdoor unit installation manual. Copper pipes for hydro-sanitary applications are completely unsuitable.

- If the pipes require brazing, make sure that oxygen free nitrogen (OFN) is flowing through the system.
- The nitrogen blowing pressure range is 0.02 to 0.05 MPa (2.9 to 7.3 psi).

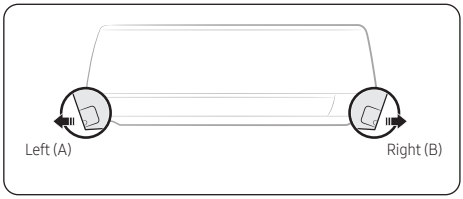
There are 2 refrigerant pipes of different diameters:

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

A short pipe is already fitted to the mini-split. You may need to extend the pipe using the assembly pipe. (optional)

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

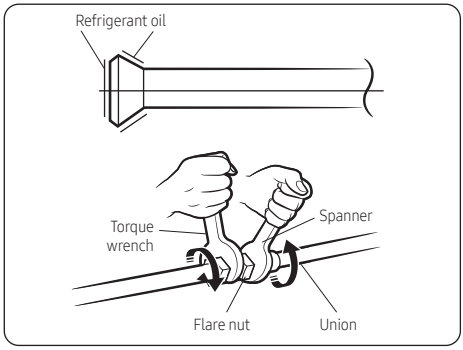
- Left(A)
- Right(B)
- Rear



1 Cut out the appropriate knock-out piece on the rear of the indoor unit unless you connect the pipe directly from the rear.

2 Smooth the cut edges.

3 Remove the protection caps of the pipes and connect the assembly pipe to each pipe. Tighten the nuts first with your hands, and then with a torque wrench, applying the following torque:



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

NOTE

- If you want to shorten or extend pipes, refer to **Step 6 Cutting or flaring the pipes**.

4 Cut off the remaining foam insulation.

5 If necessary, bend the pipe to fit along the bottom of the indoor unit. Then pull it out through the appropriate hole.
   - The pipe should not project from the rear of the indoor unit.
   - The bending radius should be 3.94 inch (100 mm) or more.

6 Pass the pipe through the hole in the wall.

7 For further details on how to connect to the outdoor unit and purge the air, refer to **Step 5 Purging the unit**.

NOTE

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

  All refrigerant pipe connection must be easy accessible and serviceable.

Installation Procedure

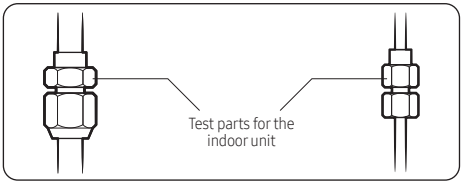
Step 8 Performing leak test

Leak test

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

Before creating a vacuum and adding refrigerant, pressurize the whole system with nitrogen using a cylinder with a pressure reducer at a pressure above 0.2 MPa (29.0 psi), less than 4.0 MPa (580 psi) (gauge) to detect leaks on the refrigerant fittings.

Refer to the outdoor unit installation manual for the complete steps for pressure testing and vacuuming the system before charging with refrigerant.



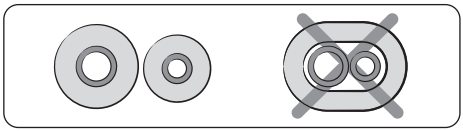
⚠ CAUTION

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

Step 9 Wrapping the pipes with the insulation

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

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



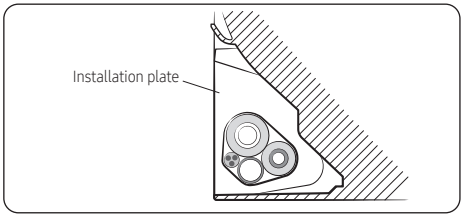
2 Wrap the refrigerant pipe and the drain hose in the rear of the indoor unit with the absorbent pad.

NOTE

- Wind the pipe and hose three times to the end of the indoor unit with the absorbent pad. [0.79 inch (20 mm) interval]

3 Wind the pipe, assembly cable and drain hose with insulation tape.

4 Place the bundle (the pipe, assembly cable and drain hose) in the lower part of the indoor unit carefully so it doesn't project from the rear of the indoor unit.



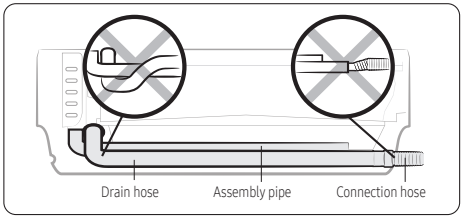
5 Hook the indoor unit to the installation plate and move the unit to the right and left until it is securely in place.

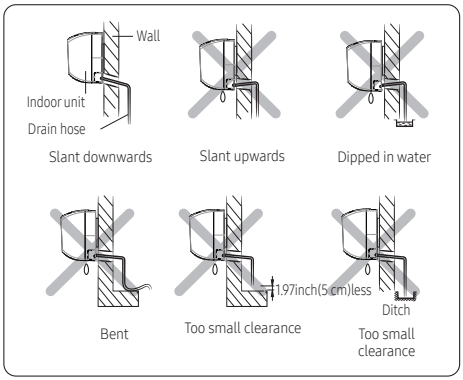
6 Wrap the rest of the pipe with vinyl tape.

7 Attach the pipe to the wall using clamps (optional).

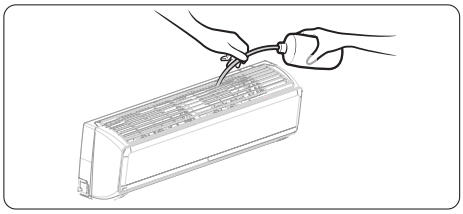
Step 10 Installing and connecting the drain hose

1 Install the drain hose.





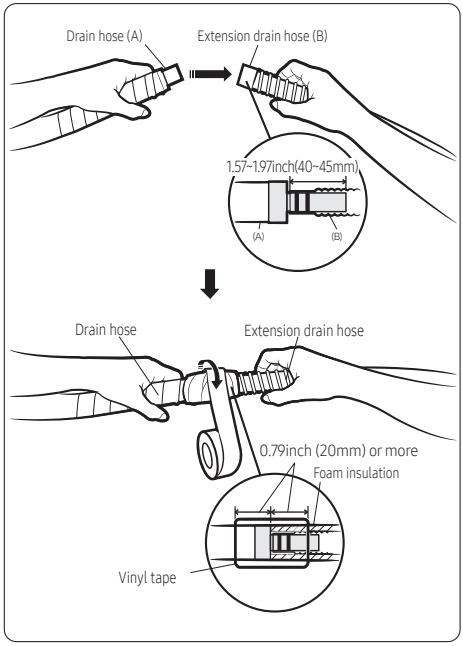
2 Pour water into the drain pan. Check whether the hose is well drained.



⚠ CAUTION

- Make sure that the indoor unit is in upright position when you pour water to check for leakage. Make sure that the water does not overflow onto the electrical part.
- If the diameter of the connection hose is smaller than the product's drain hose, water leakage may occur.
- Inadequate installation may cause water leakage.
- If the drain hose is routed inside the room, insulate the hose so that dripping condensation does not damage the furniture or floors.
- Do not box in or cover the drain hose connection. Drain hose connection must be easily accessible and serviceable.

Step 11 Optional: Extending the drain hose

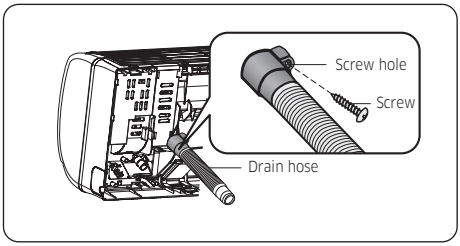


Installation Procedure

Step 12 Optional: Changing the direction of the drain hose

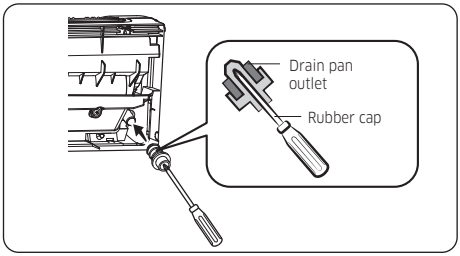
Change the direction only when it is necessary.

1 Detach the rubber cap with the flyer.



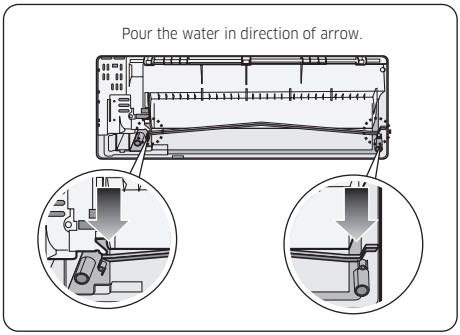
2 Detach the drain hose by pulling it and turning to the left.

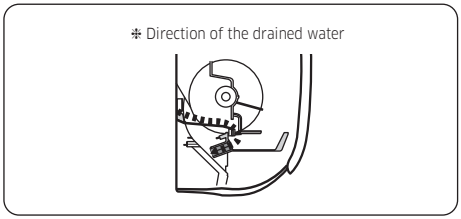
3 Insert the drain hose by fixing it into the groove of the drain hose and the outlet of the drain pan.



4 Attach the rubber cap with a screwdriver by turning it to the right until it fixes to the end of the groove.

5 Check for leakage on both side of the drain outlet.





⚠ CAUTION

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

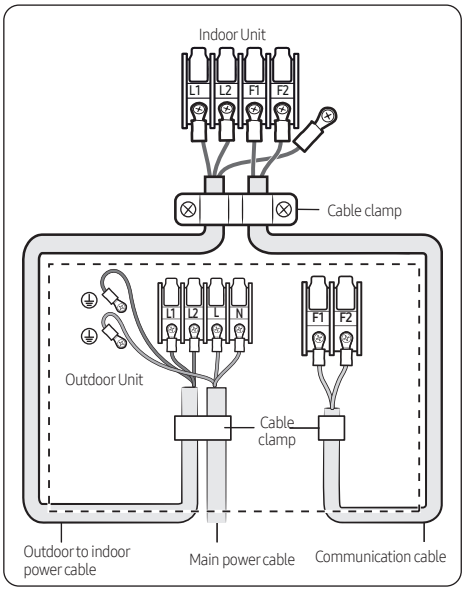
Step 13 Connecting the power and communication cables

⚠ CAUTION

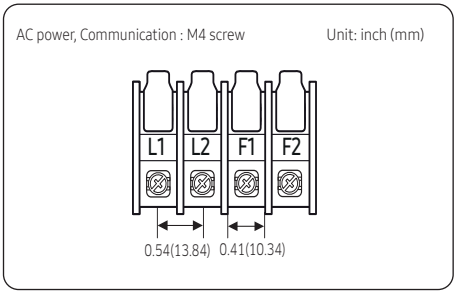
- Always remember to connect the refrigerant pipes before performing the electric connections.
  When disconnecting the system, always disconnect the electric cables before disconnecting the refrigerant pipes.
- For the product that uses the R-32 refrigerant, be cautious not to generate a spark by keeping 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 mini-split to the grounding system before performing the electric connections. Use a crimp ring terminal at the end of each wire.

The indoor unit is powered through the outdoor unit by means of a H05RN-F (60245 / IEC57) connection cable (or a more power model), with insulation in synthetic rubber and a jacket in polychloroprene (neoprene), in accordance with the requirements specified in the standard EN 60335-2-40.

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



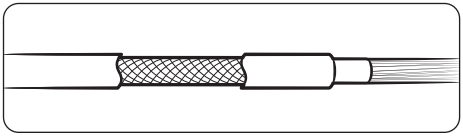
Indoor power supply		
Power supply	**Max/ Min(V)**	**Indoor power cable**
208 to 230V, 60Hz	±10%	AWG18↑, 3 wires
Communication cable		
AWG18↑, 2 wires		



	Tightening torque	
	N·m	**lbf·ft**
M3.5	0.8 to 1.2	0.58 to 0.87
M4	1.2 to 1.8	0.87 to 1.30

(1N·m=10kgf·cm)

- Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cords.
  - Code designation [1-phase] IEC: 60245 IEC 57 / CENELEC: H05RN-F grade or more
- Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



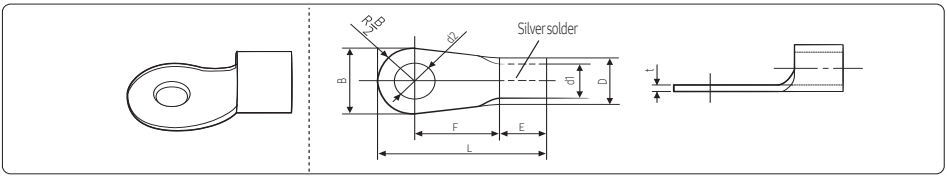
⚠ CAUTION

- 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.

Installation Procedure

Wiring work

Selecting compressed ring terminal



Nominal dimensions for cable [Inch² (mm²)]		0.002 (1.5)		0.003 (2.5)		0.006 (4)
Nominal dimensions for screw [Inch (mm)]		0.15 (4)	0.15 (4)	0.15 (4)	0.15 (4)	0.15 (4)
B	Standard dimension [Inch (mm)]	0.25 (6.6)	0.31 (8.0)	0.25 (6.6)	0.33 (8.5)	0.37 (9.5)
	Allowance [Inch (mm)]	±0.007 (±0.2)		±0.007 (±0.2)		±0.007 (±0.2)
D	Standard dimension [Inch (mm)]	0.13 (3.4)		0.16 (4.2)		0.22 (5.6)
	Allowance [Inch (mm)]	+0.011 (+0.3) -0.007 (-0.2)		+0.011 (+0.3) -0.007 (-0.2)		+0.011 (+0.3) -0.007 (-0.2)
d1	Standard dimension [Inch (mm)]	0.06 (1.7)		0.09 (2.3)		0.13 (3.4)
	Allowance [Inch (mm)]	±0.007 (±0.2)		±0.007 (±0.2)		±0.007 (±0.2)
E	Min. [Inch (mm)]	3/16 (4.1)		1/4 (6)		1/4 (6)
F	Min. [Inch (mm)]	1/4 (6)		1/4 (6)		1/4 (6)
L	Max. [Inch (mm)]	5/8 (16)		3/4 (17.5)		3/4 (20)
d2	Standard dimension [Inch (mm)]	0.16 (4.3)		0.16 (4.3)		0.16 (4.3)
	Allowance [Inch (mm)]	+0.007 (+0.2) 0 (0)		+0.007 (+0.2) 0 (0)		+0.007 (+0.2) 0 (0)
t	Min. [Inch (mm)]	0.02 (0.7)		0.03 (0.8)		0.035 (0.9)

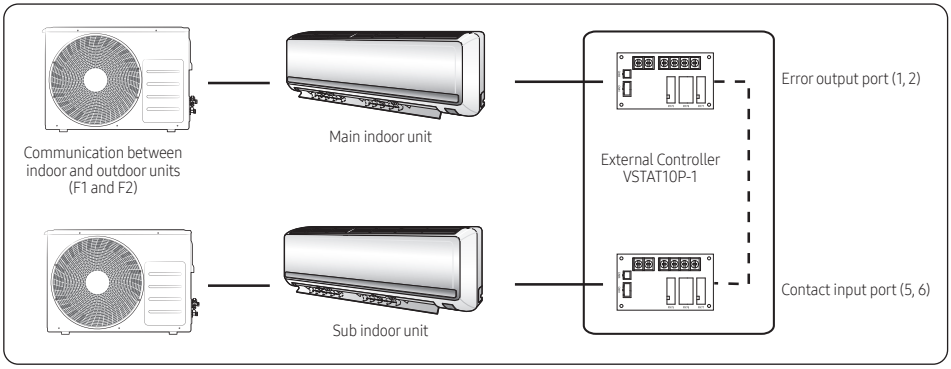
Step 14 Optional : Setting the Emergency Temperature Output (ETO) function

Emergency Temperature Output (ETO) function

⚠ CAUTION

- In order to deploy the ETO function, the VSTAT10P-1, an external contact interface module, must be installed in each indoor unit.
  - The ETO is a concept of emergency operation of indoor units. If the indoor unit 1 (main indoor unit) stops because of an error, the indoor unit 2 (sub indoor unit) starts to operate.
  - Basically, the indoor unit 2 operates in the previous mode. [For the first time operation, it starts in 75 °F (24 °C) Auto mode.]
  - To set more detailed operation conditions for the indoor unit 2, use the Lennox Service Software.

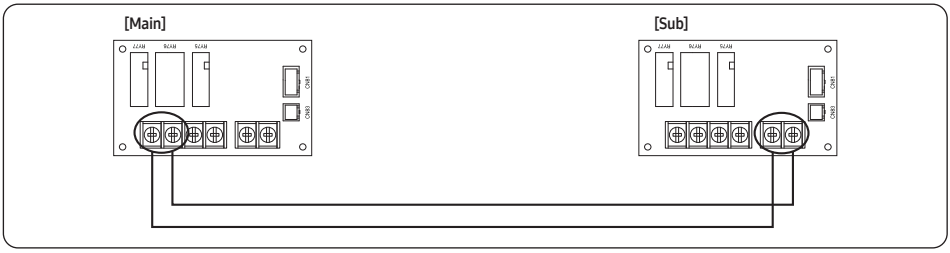
Setting up the ETO



1 Main indoor unit
  - Disable the external contact control (Default).
  - Connect the Lennox Service Software 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 Lennox Service Software to F1 and F2.
  - Enable the entrance control and set the mode, set temperature, and fan speed.

Installation Procedure



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.

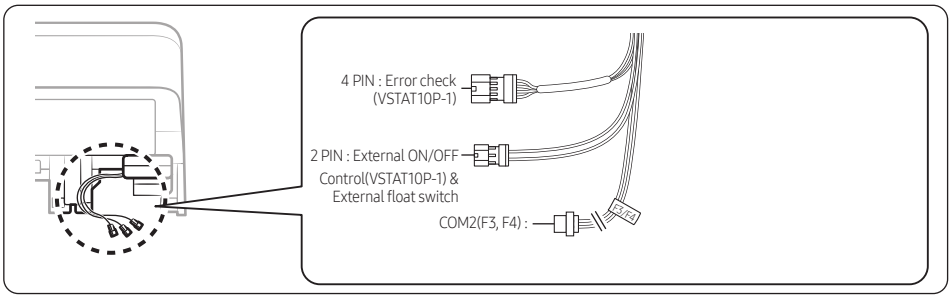
2 Sub indoor unit
- Based on the entrance control settings, the sub indoor unit decides the mode, set temperature, and fan speed when contact inputs are given.

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

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

Step 15 Optional : Connecting the External control (VSTAT10P-1), Wired controller and External Floating switch

After disassembling the cover panel, you can connect the wires from the indoor unit's display to the External control(VSTAT10P-1) and wired controller, External floating switch.



- External controller (VSTAT10P-1) : Connect the wires of the external controller to 4PIN (Error check) and 2PIN (External On/Off). (Refer to the manual of VSTAT10P-1.)
  Next, set SEG15 for the Install option (02 mode). (See step 15 for details on how to set an option code.)
- Wired controller : Be sure to connect the wired controller for installation after cutting the COM2(F3,F4) wire.
- Connecting the External Floating switch :
  1. Connect the external float switch to the 2PIN wire.
  2. If the connector types of the external float switch and 2PIN wire do not match, cut off the end of the 2PIN wire before connecting the wire to the external float switch.
  3. Set SEG8 for the Install option (02 mode) to '8'. (Refer to "Setting an indoor unit installation option")

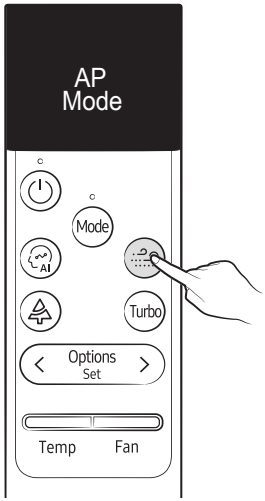
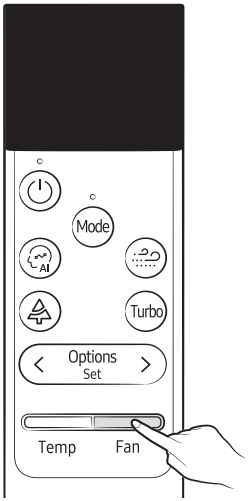
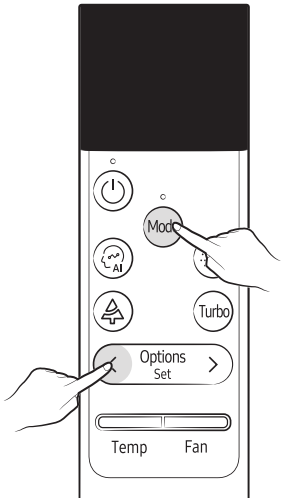
NOTE

- The External Floating switch is not sold separately by Lennox.
- External Control (VSTAT10P-1) and External Floating switch cannot be connected simultaneously. Only either of them can be connected at a time.

Installation Procedure

Step 16 Optional : LED Display indicator specifications when checking Wi-Fi Easy Setup and Wi-Fi status

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

Easy Setup	Check internet connection status	Connect/Disconnect Wi-Fi
		
Press the button for 5 seconds	Press the button for 5 seconds	Press the Mode and Options Set button for 5 seconds

LED Indicator Status

Console		Indicators			Remarks	Measure
		On/Off	Timer	Wi-Fi		
		⏻	🕒	📶		
Easy Setup	AP entry	X	X	◑	Wi-Fi LED flashing (0.5 on / 0.5 off)	-
	Device Check	X	X	◑	Wi-Fi LED flashing (0.5 on / 0.5 off)	-
	Device Registration	X	X	◑	Wi-Fi LED flashing (1.5 on / 0.5 off)	-
	Connection success	X	X	●	Wi-Fi LED turns on	-
	Connection failed	X	X	X	Wi-Fi LED turns off	AP setting,Wi-Fi module replacement
Wi-Fi function	Enable	◑	◑	◑	All LEDs flashing one time and Wi-Fi LED turns on	-
		X	X	●		
	Disable	◑	◑	◑	All LEDs flashing one time and Wi-Fi LED turns off	-
		X	X	X		
Initialize connection information		◑	◑	◑	LEDs flashing sequentially (On/Off → Timer → Wi-Fi)	-
Initialize the device		◑	◑	◑	LEDs flashing sequentially (Wi-Fi → Timer → On/Off)	-

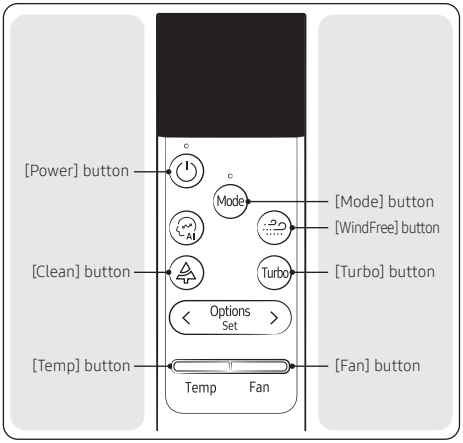
Installation Procedure

Step 17 Setting the indoor unit addresses and the installation options

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

Common steps for setting the addresses and options

Controllers



NOTE

- The controller display and buttons may vary depending on the model.

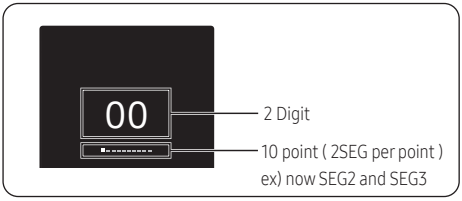
1 Enter the mode for setting the options.

a Reset controller: Temp button Down + Fan button Down + Mode Press for 10 seconds

b You can see "SW Reset" message and enter the following in 5 seconds.

c Press WindFree button and Turbo button for 5 seconds.

d Make sure that you are entered to the mode for setting options.



2 Set the option values.

⚠ CAUTION

- The total number of available options is 24 : SEG1 to SEG24.
- Because SEG1, SEG7, SEG13, and SEG19 are the page options used by the previous controller models, the modes to set values for these options are skipped automatically.
- You can see 20 SEG (except SEG1, SEG7, SEG13, SEG19 SEG2 → ...→ SEG6 → SEG8 → .....→ SEG12 → SEG14 → .... → SEG18 → SEG20 → ... → SEG24

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

- You can set the next SEG by pressing the Mode button.
- You can change the digit value through the following operation.
  Left value : Temp up or down, range : 0 ~ F
  Right value : Fan up or down, range : 0 ~ F

Take the steps presented in the following table:

Steps	Controller display
1 Set the SEG2 and SEG3 values: **a** Set the SEG2 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG3 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG2 SEG3
2 Press the Mode button to move to the next page.	
3 Set the SEG4 and SEG5 values: **a** Set the SEG4 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG5 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG4 SEG5
4 Press the Mode button to move to the next page.	

Installation Procedure

Steps	Controller display
5 Set the SEG6 and SEG8 values: **a** Set the SEG6 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG8 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG6 SEG8
6 Press the Mode button to move to the next page.	
7 Set the SEG9 and SEG10 values: **a** Set the SEG9 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG10 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG9 SEG10
8 Press the Mode button to move to the next page.	

Steps	Controller display
9 Set the SEG11 and SEG12 values: **a** Set the SEG11 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG12 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG11 SEG12
10 Press the Mode button to move to the next page.	
11 Set the SEG14 and SEG15 values: **a** Set the SEG14 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG15 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG14 SEG15
12 Press the Mode button to move to the next page.	

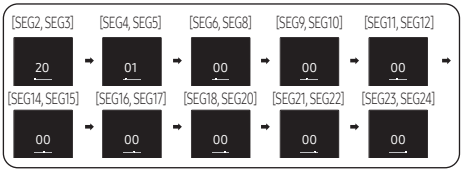
Installation Procedure

Steps	Controller display
13 Set the SEG16 and SEG17 values: **a** Set the SEG16 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG17 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG16 SEG17
14 Press the Mode button to move to the next page.	
15 Set the SEG18 and SEG20 values: **a** Set the SEG18 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG20 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG18 SEG20
16 Press the Mode button to move to the next page.	

Steps	Controller display
17 Set the SEG21 and SEG22 values: **a** Set the SEG21 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG22 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG21 SEG22
18 Press the Mode button to move to the next page.	
19 Set the SEG23 and SEG24 values: **a** Set the SEG23 value by pressing the Temp button repeatedly until the value you want to set appears on the controller display. **b** Set the SEG24 value by pressing the Fan button repeatedly until the value you want to set appears on the controller display. When you press the Fan or Temp button, values appear in the following order: 0 → 1 → ··· E → F	 SEG23 SEG24

Installation Procedure

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



EX) 3WMD***S6-1P

020010-100000-200000-300000

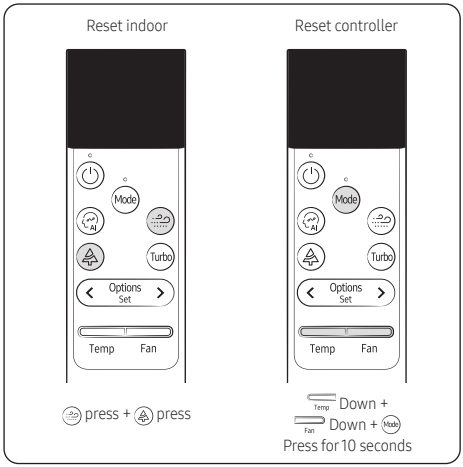
4 Save the option values into the indoor unit:
Point the controller to the controller sensor on the indoor unit and then press the (⏻) button on the controller twice.
Make sure that this command is received by the indoor unit. When it is successfully received, you can hear a short sound from the indoor unit. If the command is not received, press the (⏻) button again.

5 Check whether the mini-split operates following the option values you have set:

a Reset the indoor or outdoor unit.

- Indoor Unit : Press (≈) button + (🌲) button for 5 seconds
- Outdoor Unit: Press the K3 button

b Reset controller: (Temp) button Down + (Fan) button Down + (Mode) Press for 10 seconds
You can see the "SW Initialization" message.



Setting the indoor unit addresses

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

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

1 Make sure that the power is supplied to the indoor unit. If the indoor unit is not plugged in, it must include a power supply.

2 Set an address for each indoor unit using the controller, 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 **24**

- The indoor unit addresses (main and RMC addresses) are set to 0A0000-100000-200000-300000 by default.
- If indoor units and outdoor units match 1:1, you don't need to set the main address because it is automatically set by the outdoor unit.
- If you are using on or off controller, set RMC address.

<table>
<tr><td>Option</td><td colspan="2">SEG1</td><td colspan="2">SEG2</td><td colspan="2">SEG3</td><td>SEG4</td><td colspan="2">SEG5</td><td colspan="2">SEG6</td></tr>
<tr><td>Function</td><td colspan="2">Page</td><td colspan="2">Mode</td><td colspan="2">Setting main address</td><td rowspan="3">Reserved</td><td colspan="2">Indoor unit number</td><td colspan="2">Indoor unit number</td></tr>
<tr><td rowspan="3">Indication and details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td></tr>
<tr><td colspan="2" rowspan="2">0</td><td colspan="2" rowspan="2">A</td><td>0</td><td>No main address</td><td rowspan="2">0 to 1</td><td rowspan="2">Tens digit</td><td rowspan="2">0 to 9</td><td rowspan="2">Units digit</td></tr>
<tr><td>1</td><td>Main address setting mode</td></tr>
<tr><td>Option</td><td colspan="2">SEG7</td><td colspan="2">SEG8</td><td colspan="2">SEG9</td><td>SEG10</td><td colspan="2">SEG11</td><td colspan="2">SEG12</td></tr>
<tr><td>Function</td><td colspan="2">Page</td><td colspan="2" rowspan="3">Reserved</td><td colspan="2">Setting RMC address</td><td rowspan="3">Reserved</td><td colspan="2">Group channel (x16)</td><td colspan="2">Group address</td></tr>
<tr><td rowspan="3">Indication and details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td><td>Indication</td><td>Details</td></tr>
<tr><td colspan="2" rowspan="2">1</td><td>0</td><td>No RMC address</td><td rowspan="2">RMC1</td><td rowspan="2">0 to 2</td><td rowspan="2">RMC2</td><td rowspan="2">0 to F</td></tr>
<tr><td>1</td><td>RMC address setting mode</td></tr>
</table>

⚠ CAUTION

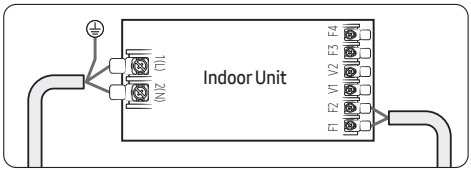
- The main address must be set to a value in the range 0 to 15. If you set other values, communication error will occur.
- If any of SEG5 and SEG6 is set to a value in the range A to F, the main address of the indoor unit does not change.
- If SEG3 is set to 0, the indoor unit maintains the existing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

Installation Procedure

Setting the installation options in a batch

Installation option No. for an installation options: 02XXXX-1XXXXX-2XXXXX-3XXXXX

1 Make sure that the power is supplied to the indoor unit. If the indoor unit is not plugged in, it must include a power supply.



2 The panel(display) should be connected to an indoor unit to receive option.

3 Set the installation option according to the installation condition of an mini-split.

- The installation options of indoor units are set to like a below table by default.

Model	3WMD***S6-1P
02 series installation option	020010-100000-200000-300000
05 series installation option	050030-100710-200000-300000

- Individual control of a controller(SEG20) is the function that controls an indoor unit individually when there is more than one indoor unit.
- If you set the applicable segments with numbers other than the indiciated, the initial setting will be maintained.

4 Set the indoor unit option by wireless controller.

02 series installation option (Detailed)

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

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

Option	SEG7		SEG8			SEG9	SEG10	SEG11	SEG12
Function	Page		Use of drain pump & Emergency Stop [2]						
Indication and details	Indication	Details	Drain pump	Details					
				Drain pump	Emergency Stop				
	1		0 or 4	Disuse	Disuse	Reserved	Reserved	Reserved	Reserved
			1 or 5	Use					
			2 or 6	Use with 3min delay					
			3 or 7	Disuse					
			8 or C	Disuse	Use				
			9 or D	Use					
			A or E	Use with 3min delay					
			B or F	Disuse					

Option	SEG13		SEG14			SEG15		SEG16	SEG17		SEG18	
Function	Page		Use of external control			Setting the output of external control			Buzzer control		Maximum filter usage time [3]	
Indication and details	Indication	Details	Indication	Details		Indication	Details		Indication	Details	Indication	Details
	2		0	Disuse	Sub, Existing control	0	Thermo on	Reserved	0	Use of buzzer	2	1000 hours
			1	On/Off								
			2	Off		1	Operation on					
			3	Window On/Off								
			4	Disuse	Main, Existing control	2	External heater use(Fan On when the heater is running) Emergency heater disuse					
			5	On/Off								
			6	Off		3	External heater use(Fan OFF when the heater is running) Emergency heater disuse					
			7	Window On/Off								
			8	Disuse	Sub, Reverse control	4	External heater use(Fan On when the heater is running, Fan off only in case of Defrost) Emergency heater disuse		1	Disuse of buzzer	6	2000 hours
			9	On/Off								
			A	Off		5	External heater use(Fan On when the heater is running) Emergency heater use					
			B	Window On/Off								
			C	Disuse	Main, Reverse control	6	External heater use(Fan OFF when the heater is running) Emergency heater use					
			D	On/Off								
			E	Off		7	External heater use(Fan On when the heater is running, Fan off only in case of Defrost) Emergency heater use					
			F	Window On/Off								

Installation Procedure

Option	SEG19		SEG20		SEG21		SEG22	SEG23	SEG24
Function	Page		Individual control with controller *		Heating setting compensation		Reserved	Reserved	Reserved
Indication and details	Indication	Details	Indication	Details	Indication	Details			
	3		0,1	Indoor1	0	Default			
			2	Indoor2	1	3.6°F (2°C)			
			3	Indoor3					
					2	9°F (5°C)			
			4	Indoor4					

- 1) SEG4: By SEG4 setting, Minimizing fan operation when thermostat is off.
  - Fan operates for 20 seconds at an interval of 5 minutes in heat mode.
  - Fan stops or operates Ultra low in Cooling when thermostat is off.
- 2) SEG8

Drain pump: The Drain pump option is automatically set to [Used with 3minute delay], even if you set it to [Disuse].

Emergency Stop: If you set Emergency Stop to [Use], it is not possible to use the ETO or On/Off Control feature through External Control (SEG14).

- 3) 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).
- 4) SEG20: If you set the Individual control with controller option to a value other than 0 to 4, it is automatically set to 0 (Indoor1)

05 series installation option (Detailed)

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

SEG1		SEG2		SEG3	SEG4	SEG5	SEG6		
Page		Mode					Auxiliary heater offset temp. and time delay		
Indication	Details	Indication	Details				Indication	Details	
								Set temperature for auxiliary heat on	Time delay for auxiliary heat on
0		5	Installation Option 2	Reserved	Reserved	Reserved	0	No temperature offset	No delay
							1	No temperature offset	10 minutes
							2	No temperature offset	20 minutes
							3	2.7°F (1.5°C)	No delay
							4	2.7°F (1.5°C)	10 minutes
							5	2.7°F (1.5°C)	20 minutes
							6	5.4°F (3°C)	No delay
							7	5.4°F (3°C)	10 minutes
							8	5.4°F (3°C)	20 minutes
							9	8.1°F (4.5°C)	No delay
							A	8.1°F (4.5°C)	10 minutes
							B	8.1°F (4.5°C)	20 minutes
							C	10.8°F (6°C)	No delay
							D	10.8°F (6°C)	10 minutes
							E	10.8°F (6°C)	20 minutes

SEG7		SEG8		SEG9		SEG10			SEG11	SEG12
Page		heater lock out		Heat pump lock out		Bit 0 : Allow Fan control in auto mode Bit 1 : Onboarding Type (AP / BLE)				
Indication	Details	Indication	Details	Indication	Details	Indication	Details			
1		0	Disuse	0	Disuse	0	Not allow	AP Onboarding	0	Reserved
		1	65 °F (18.3 °C)	1	45 °F (7.2 °C)	1	allow	AP Onboarding		
		2	60 °F (15.6 °C)	2	40 °F (4.4 °C)					
		3	55 °F (12.8 °C)	3	35 °F (1.7 °C)	2	Not allow	BLE Onboarding		
		4	50 °F (10.0 °C)	4	30 °F (-1.1 °C)					
		5	45 °F (7.2 °C)	5	25 °F (-3.9 °C)	3	allow	BLE Onboarding		
		6	40 °F (4.4 °C)	6	20 °F (-6.7 °C)					
		7	35 °F (1.7 °C)	7	15 °F (-9.4 °C)	4	Not allow	AP Onboarding		
		8	30 °F (-1.1 °C)	8	10 °F (-12.2 °C)					
		9	25 °F (-3.9 °C)	9	5 °F (-15 °C)	5	allow	AP Onboarding		
		A	20 °F (-6.7 °C)	A	0 °F (-17.8 °C)					
		B	15 °F (-9.4 °C)	B	-5 °F (-20.6 °C)	6	Not allow	BLE Onboarding		
		C	10 °F (-12.2 °C)	C	-10 °F (-23 °C)					
		D	5 °F (-15 °C)	D	-15 °F (-26 °C)	7	allow	BLE Onboarding		
		E	0 °F (-17.8 °C)	E	-20 °F (-29 °C)					

SEG13		SEG14	SEG15	SEG16	SEG17	SEG18
Page		Reserved	Reserved	Reserved	Reserved	Reserved
Indication	Details					
2						

SEG19		SEG20	SEG21	SEG22	SEG23	SEG24
Page		Reserved	Reserved	Reserved	Reserved	Reserved
Indication	Details					
3						

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 **24**.

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 and details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details	Indication	Details
	0		D		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

Troubleshooting

Detection of errors

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

LED Display on the receiver & display unit

LED Display

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

● On ◑ Flickering ✕ Off

Abnormal condition	Error code	LED Display		
		⏻	⏲	TURBO
Error on indoor temperature sensor (Short or Open)	E121	✕	◑	✕
1. Error on Eva-in sensor (Short or Open) 2. Error on Eva-out sensor (Short or Open) 3. Discharge sensor error (Short or Open)	E122 E123 E126	◑	◑	✕
Indoor fan error	E154	✕	✕	◑
1. Error on outdoor temperature sensor (Short or Open) 2. Error on cond sensor 3. Error on discharge sensor Other outdoor unit sensor error that is not on the above list	E221 E237 E251	◑	✕	◑
1. When there is no communication between the indoor·outdoor units for 2 minutes 2. Communication error received from the outdoor unit 3. 3 miniute tracking error on outdoor unit 4. Communication error after tracking due to unmatching number of installed units 5. Error due to repeated communication address 6. Communication address not confirmed Other outdoor unit communication error that is not on the above list	E101 E102 E202 E201 E108 E109	✕	◑	◑
Self diagnosis error display 1. Error due to opened EEV (2nd detection) 2. Error due to closed EEV (2nd detection) 3. Eva in sensor is detached 4. Eva out sensor is detached 5. Thermal fuse error (Open)	E151 E152 E128 E129 E198	●	◑	◑

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