This product utilizes **R-454B** *refrigerant*

DIY® Series Outtasight® One-Way Cassette

Installation & Owner's Manual

MODELS:

*DIYCASSETTE*HP-230D25-O*

Read this manual carefully before installation and keep it where the operator can easily find it for future reference.

Due to updates and constantly improving performance, the information and instructions within this manual are subject to change without notice.

Version Date: July 24, 2025

Please visit www.mrcool.com/documentation to ensure you have the latest version of this manual.

MRCOOL®
COMFORT MADE SIMPLE

CONTENTS

Safety Precautions

Read Before Using

Incorrect usage may cause serious damage or injury.

The symbols below are used throughout this manual to indicate instructions that should be followed closely or actions that should be avoided to prevent death, injury, and/or property damage.

WARNING	Indicates the possibility of personal injury or loss of life.
CAUTION	Indicates the possibility of property damage or serious consequences.

WARNING FOR PRODUCT INSTALLATION

******ELECTRICAL WORK MUST BE COMPLETED BY A QUALIFIED ELECTRICAL TECHNICIAN******

- ⊘ ***DO NOT*** **install the unit in a location that may be exposed to combustible gas leaks. If combustible gas accumulates around the unit, it could cause fire.**
- ⊘ ***DO NOT*** **turn on the power until the installation and all work has been completed.**

1. Turn off the unit and disconnect the power before performing any installation or repairing. Failure to do so can cause electric shock.
2. Installation must be performed according to the installation instructions. Improper installation could cause water leakage, electrical shock, or fire.
3. Contact an authorized service technician for repair or maintenance of this unit.
4. This appliance must be installed in accordance with national wiring regulations.
5. Only use the included accessories, parts, and specified parts for installation. Using non-standard parts can cause water leakage, electrical shock, fire, and/or failure of the unit.
6. Install the unit in a firm location that can support the unit's weight. If the location cannot support the unit's weight, or the installation is not done properly, the unit may drop and cause serious injury and damage.
7. Install the drainage piping according to the instructions in this manual. Improper drainage could cause water damage to your home and/or property.
8. When moving or relocating the air conditioner, consult experienced service technicians for disconnection and re-installation of the unit.
9. For detailed information of how to install the indoor and outdoor units to their respective supports, please refer to the indoor unit installation and outdoor unit installation sections of this manual.
10. USB device access, replacement, and maintenance operations must be carried out by professional staff.

WARNING FOR CLEANING & MAINTENANCE

1. **DO NOT** clean the unit with excessive amounts of water.
2. **DO NOT** clean the unit with combustible cleaning agents, as these could cause deformation and/or fire.
3. Turn off the device and disconnect the power before cleaning. Failure to do this could result in electrical shock.

TAKE NOTE OF FUSE SPECIFICATIONS

- The unit's circuit board (PCB) is designed with a fuse to provide over-current protection.
- The specifications of the fuse are printed on the circuit board, examples of such are T3.15AL/250VAC, T5AL/250VAC, T3.15A/250VAC, T5A/250VAC, T20A/250VAC, T30A/250VAC

Note: Only a blast-proof ceramic fuse can be used.

1 SAFETY

WARNING FOR PRODUCT USE

- ⊘ ***DO NOT*** **insert fingers, rods, or other objects into the air inlet or outlet. This could cause injury, since the fan may be rotating at high speeds.**
- ⊘ ***DO NOT*** **use flammable sprays such as hair spray, lacquer or paint near the unit, as this could cause fire and/or an explosion.**
- ⊘ ***DO NOT*** **operate the unit in places near or around combustible gases. Emitted gas may collect around the unit and cause an explosion.**
- ⊘ ***DO NOT*** **allow children to play with the appliance. Children must be supervised around the unit at all times.**
- ⊘ ***DO NOT*** **operate the unit in a room where it could be exposed to excessive amounts of water, such as a bathroom or laundry room. Exposure to excessive water amounts can cause the electrical components to short circuit.**
- ⊘ ***DO NOT*** **expose your body directly to direct cool airflow from the unit for a prolonged period of time.**

1. If the unit operates abnormally (emits strange noises or a burning smell), immediately turn off the unit and disconnect the power in order to avoid electric shock, fire, and/or injury. Call your local dealer, or MRCOOL® tech support at (270) 366-0457, for further assistance.
2. If the air conditioner is used together with burners or other heating devices, thoroughly ventilate the room in order to avoid an oxygen deficiency.
3. In certain functional environments (such as kitchens and server rooms etc.), the use of specially designed air-conditioning units is highly recommended.
4. 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 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.
5. Turn off the unit and disconnect the power before performing any cleaning, installation, or repairing. Failure to do so can cause electric shock.

CAUTION

- ⊘ ***DO NOT*** **allow the air conditioner to operate for extended periods of time with the doors or windows open, or in very high humidity.**
- ⊘ ***DO NOT*** **operate the air conditioner with wet hands, as this could cause electric shock.**
- ⊘ ***DO NOT*** **use device for any other purpose than its intended use.**
- ⊘ ***DO NOT*** **climb onto or place objects on top of the outdoor unit.**

1. Make sure that water condensation can drain smoothly and unhindered from the unit.
2. Turn off the unit and disconnect the power if the unit will not be used for an extended period of time.
3. Turn off and unplug the unit during storms.

ELECTRICAL WARNINGS

******ELECTRICAL WORK MUST BE COMPLETED BY A QUALIFIED ELECTRICAL TECHNICIAN******

- ⊘ ***DO NOT*** **share the power supply with other appliances. An improper or insufficient power supply could cause fire and/or electrical shock.**

1. Only use the specified wire. If the wire is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
2. The product must be properly grounded during installation or electrical shock could occur.
3. Appropriate wiring standards, regulations, and the installation manual must be followed for all electrical work.
4. If connecting power to fixed wiring, an all-pole disconnection device must be incorporated in the fixed wiring in accordance with the wiring rules and must meet the following requirements: at least 3 mm of clearances in all poles, a leakage current that may exceed 10 mA, and a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.
5. Connect cables tightly and clamp them securely to prevent external forces from damaging the terminal.

ELECTRICAL WARNINGS

Improper electrical connections could overheat, causing fire and/or electrical shock.

6. All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
7. All wiring must be properly arranged to ensure that the control board cover can close properly. If the control board cover is not properly closed, it can lead to corrosion and cause the connection points on the terminal to heat up, catch fire, or cause electrical shock.
8. Disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

FLAMMABLE REFRIGERANT WARNINGS

1. The installation of pipe-work should be kept to a minimum and should be protected from physical damage.
2. Refrigerant pipes should comply with national gas regulations.
3. All mechanical connections and ventilation openings should be kept clear of obstruction.
4. Utilize proper disposal processes based on national regulations.
5. Any person involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification.
6. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
7. Do not use any means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
8. The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance, or an operating electric heater).
9. Do not allow foreign matter (oil, water, etc.) to enter the piping, and securely seal the opening by pinching, taping, etc.
10. Do not pierce or burn.
11. Refrigerants may not contain an odor.
12. Working procedures that affect safety should only be carried out by competent persons.
13. The unit should be stored in a well-ventilated area where the room size corresponds to the room area as specific for operation, and should be stored so as to prevent potential mechanical damage from occurring.
14. Joints should be tested with detection equipment with a capability of 5 g/year of refrigerant or better, with the equipment in standstill and under operation or under a pressure of at least these standstill or operation conditions after installation. Detachable joints should NOT be used in the indoor side of the unit (brazed, welded joint could be used).
15. A leak detection system is installed. The unit must be powered except for service. For units with a refrigerant sensor, the indoor unit will display an error code and emit a buzzing sound, the compressor of the outdoor unit will immediately stop, and the indoor fan will start running. The service life of the refrigerant sensor is 15 years. When the refrigerant sensor malfunctions, the indoor unit will display the error code "FHCC". The refrigerant sensor cannot be repaired and can only be replaced with a sensor approved by MRCOOL®.
16. When a flammable refrigerant is used, the requirements for installation space of the appliance and/or ventilation requirements are determined according to:
    - The mass charge amount (M) used in the unit.
    - The installation location.
    - The type of ventilation of the location of the unit.
    - Piping material, pipe routing, and installation must include protection from physical damage in operation and service. This must be in compliance with local codes and standards, such as ASHRAE 15, IAPMO Uniform Mechanical Code, ICC International Mechanical Code, or CSA B52. All field joints must be accessible for inspection prior to being covered or enclosed.
    - Protection devices, piping and fittings must be protected as much as possible against adverse environmental effects. For example, against the danger of water collecting and freezing in relief pipes or against accumulation of dirt or debris.

FLAMMABLE REFRIGERANT WARNINGS

- Piping in refrigeration systems must be designed and installed to minimize the likelihood of hydraulic shock, resulting in damage from the system.
- Steel pipes and components must be protected against corrosion with a rust-proof coating before applying insulation.
- Precautions must be taken against excessive vibration or movement of the unit.
- The minimum floor area of the room must be mentioned in the form of a table or a single figure without reference to a formula.

17. After completion of field piping for split systems, the field pipework should be pressure tested with an inert gas and then vacuum tested prior to refrigerant charging, according to the following requirements:
    - The minimum test pressure for the low side of the system should be the low side design pressure and the minimum test pressure for the high side of the system should be the high side design pressure, unless the high side of the system cannot be isolated from the low side of the system in which case the entire system should not be pressure tested to the low side design pressure.
    - The test pressure after removal of pressure source shall be maintained for at least 1 hour with no decrease of pressure indicated by the test gauge, with test gauge resolution not exceeding 5% of the test pressure.
18. Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repairs to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.
19. Work should occur under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
20. All maintenance staff and others working in the local area should be instructed on the nature of work being carried out. Avoid work in confined spaces.
21. The area should be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. no sparking, adequately sealed, or intrinsically safe.
22. If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment should be on site and readily available. Have a dry power or CO2 fire extinguisher adjacent to the charging area.
23. No person carrying out work in relation to a refrigerating system which involves exposing any pipe work should use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing, and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs should be displayed.
24. Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.
25. Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance ad service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance. The following checks should be applied to installations using flammable refrigerants:
    - the actual refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed;
    - the ventilation machinery and outlets are operating adequately and are not obstructed;
    - if an indirect refrigerating circuit is being used, the secondary circuits should be checked for the presence of refrigerant;
    - marking to the equipment continues to be visible and legible, marking and signs that are illegible should be corrected;
    - refrigerant pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to or protected against corrosion.

FLAMMABLE REFRIGERANT WARNINGS

26. Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution should be used.
27. Initial safety checks should include:
    - that capacitors are discharged: this should be done in a safe manner to avoid the possibility of sparking;
    - that there are no live electrical components and wiring are exposed while charging, recovering, or purging the system;
    - that there is continuity of earth bonding.
28. Sealed electrical components should be replaced if damaged.
29. Intrinsically safe components should be replaced if damaged.
30. Check that wiring will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
31. Under no circumstances should potential sources of ignition be used in the search for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) should not be used. The following leak detection methods are deemed acceptable for refrigerant systems:
    - Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.)
    - Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used.
    - Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and should be calibrated to the refrigerant employed, and the appropriate percentage of gas (25% minimum) is confirmed.
    - Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine may react with the refrigerant and corrode the copper work. Examples of leak detection fluids are the bubble method, fluorescent method agents, etc.
    - If a leak is suspected, all naked flames should be removed/extinguished.
    - If a leakage of refrigerant is found which requires brazing, all of the refrigerant should be recovered from the system, or isolated (by means of shut-off valves) in a part of the system remote from the leak.
    - See the following instructions of removal of refrigerant.
32. When breaking into the refrigerant circuit to make repairs, or for any other purpose, conventional procedures should be used. However, for flammable refrigerants, it is even more vital to follow best practice. The following procedure should be adhered to:
    - safely remove refrigerant following local and national regulations;
    - evacuate;
    - purge the circuit with inert gas;
    - evacuate;
    - continuously flush or purge with inert gas when using flame to open circuit;
    - open the circuit
33. The refrigerant charge should be recovered into the correct recovery cylinders if venting is not allowed by local and national codes.
    - For units containing flammable refrigerants, the system should be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times.
    - Compressed air or oxygen shall not be used for purging refrigerant systems.
    - For appliances containing flammable refrigerants, refrigerant purging should be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process should be repeated until no refrigerant is within the system.
    - When the final oxygen-free nitrogen charge is used, the system should be vented down to atmospheric pressure to enable work to take place. The outlet for the vacuum pump should not be close to any potential ignition sources, and ventilation should be available.

FLAMMABLE REFRIGERANT WARNINGS

34. In addition to conventional charging procedures, the following requirements should be followed:
    - Work should be undertaken with appropriate tools only (in case of uncertainty, please consult the manufacturer of the tools for use with flammable refrigerants)
    - Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
    - Ensure that the refrigeration system is grounded prior to charging the system with refrigerant.
    - Cylinders should be kept upright.
    - Label the system when charging is complete (if not already).
    - Extreme care should be taken not to overfill the refrigeration system.
    - Prior to recharging the system, it should be pressure tested with oxygen-free nitrogen (OFN). The system should be leak-tested on completion of charging but prior to commissioning. A follow-up leak test shall be carried out prior to leaving the site.
35. Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is good recommended practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample should be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.
    a. Become familiar with the equipment and its operation.
    b. Isolate the system electrically.
    c. Before attempting the procedure ensure that:
        - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
        - all personal protective equipment is available and being used correctly;
        - the recovery process is supervised at all times by a competent person;
        - recovery equipment and cylinders conform to the appropriate standards
    d. Pump down refrigerant system, if possible.
    e. If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
    f. Make sure that the cylinder is situated on the scales before recovery takes place.
    g. Start the recovery machine and operate in accordance with instructions.
    h. Do not overfill cylinders (no more than 80% volume liquid charge).
    i. Do not exceed the maximum working pressure of the cylinder, even temporarily.
    j. When the cylinders have been filled correctly and the process completed, make sure that the cylinders and equipment are removed from the site promptly and all isolation valves on the equipment are closed off.
    k. Recovered refrigerant should not be charged into another refrigeration system unless it has been cleaned and checked.
36. Equipment shall be labeled stating that it has been decommissioned and emptied of refrigerant. The label should be dated and signed. For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.
37. When removing refrigerant from a system, either for servicing or decommissioning, it is good recommended practice that all refrigerants are removed safely. When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used should be designated for the recovered refrigerant and labeled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs. The recovery equipment should be in good working order with a set of instructions concerning the equipment that is at hand and should be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales should be available and in good working order. Hoses should be complete with leak-free disconnect couplings and in good condition. The recovered refrigerant should be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

FLAMMABLE REFRIGERANT WARNINGS

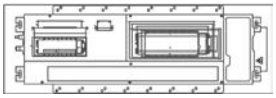
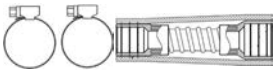
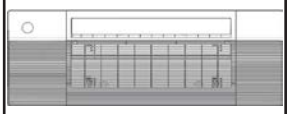
38. Transport of equipment containing flammable refrigerants should comply with transportation regulations.
39. Marking of equipment using signs should comply with local regulations.
40. Disposal of equipment using flammable refrigerants should comply with national regulations.
41. Storage of equipment/appliances should be in accordance with the manufacturer's instructions.
42. Storage of packed (unsold) equipment should be constructed so that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge. The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.
43. During the evacuation test, after achieving a vacuum level specified in the manual or less, the refrigeration system shall be isolated from the vacuum pump and the pressure shall not rise above 1500 microns within 10 minutes. The vacuum pressure level should be specified in the manual, and should be the lessor of 500 microns of the value required for compliance with national and local codes and standards, which may vary between residential, commercial, and industrial buildings.
    - Field-made refrigerant joints indoor should be tightness-tested according to the following requirements: the test method should have a sensitivity of 5 grams per year of refrigerant or better under a pressure of at least 0.25 times the maximum allowable pressure. No leak should be detected.
    - Any servicing should be performed only as recommended by MRCOOL®.
44. Any maintenance, service, or repair operations must be performed by qualified personnel. Every working procedure that affects safety should only be carried out by competent persons that are both trained and certified. The training of these procedures should be carried out by national training organizations or manufacturers that are accredited to teach the relevant national competency standards that may be set in legislation. All training should follow the ANNEX HH requirements of UL 60334-2-40 4th Edition.
    Examples of such working procedures are:
    - breaking into a refrigerant circuit
    - opening of sealed components
    - opening of ventilated enclosures

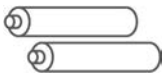
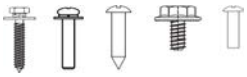
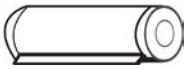
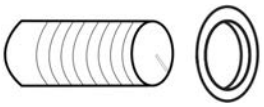
Symbols Displayed on Indoor & Outdoor Unit		
	**WARNING**	This symbol shows that this appliance uses a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.
	**CAUTION**	This symbol shows that the operation manual should be read carefully.
	**CAUTION**	This symbol shows that service personnel should be handling this equipment with reference to the installation manual.
	**CAUTION**	
	**CAUTION**	This symbol shows that information is available such as the operating manual or installation manual.

2 UNIT OVERVIEW

2.1 Packing List

This system comes with the following accessories. Use all of the installation parts and accessories to install the unit. Improper installation my result in water leakage, electrical shock and fire, or cause the equipment to fail. The items that are not included with the air conditioner must be purchased separately.

PART	LOOKS LIKE	QUANTITY
Manuals		2 (Installation & Remote)
Cardboard Template		1
Remote Control		1
Cable Tie		6
Drainpipe Adapter		1
Panel		1
Smart Controller Kit		1
DIYPRO® Cable		1
Water Receiver		1
Rubber Ring		1

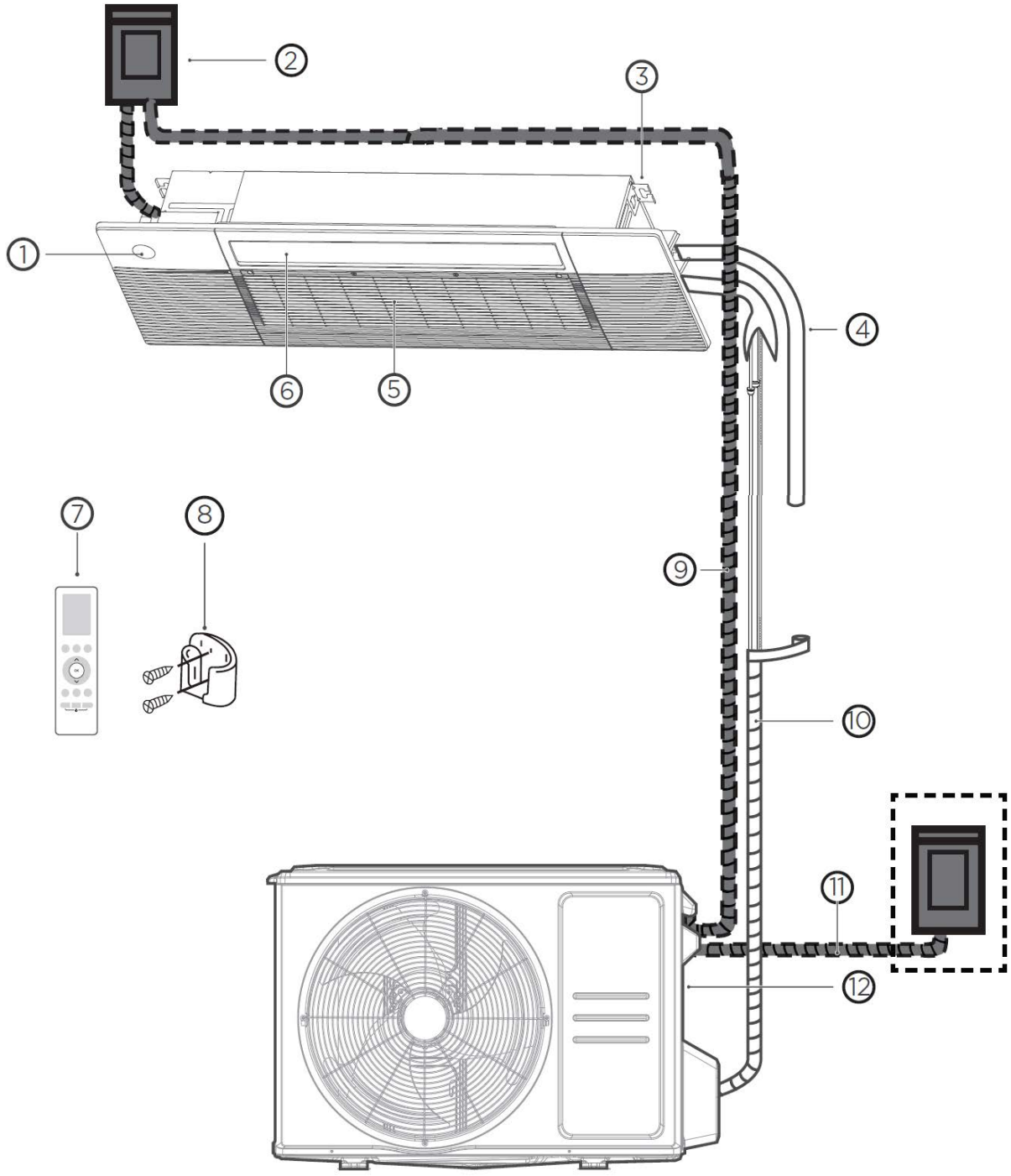
PART	LOOKS LIKE	QUANTITY
AAA Battery		2
Remote Control Holder		1
Screw Kit (ST8*50, M4*22, ST3.9*16, ST4.8*12, ST3.9*10)		1 Kit (8, 8, 2, 2, 3)
Insulation Sleeve		2
Sound-Absorbent Pads		2
Seal		1
Drain Joint		1
Plastic Wall Sleeve & Cap		1
Quick Connect® Line Set		1
Neoprene		1

Name	Model	Pipe Specification		Remark
		Liquid Side	Gas Side	
Connecting Pipe Assembly	6K	Φ1/4in (Φ6.35mm)	Φ3/8in (Φ9.52mm)	Parts must be purchased separately. Consult your dealer or technician about the proper pipe size for the unit you purchased.
	9K	Φ1/4in (Φ6.35mm)	Φ3/8in (Φ9.52mm)	
	12K	Φ1/4in (Φ6.35mm)	Φ3/8in (Φ9.52mm)	
	18K	Φ1/4in (Φ6.35mm)	Φ1/2in (Φ12.7mm)	

NOTE: Panel installation should be performed after wiring and piping have been completed.

2.2 Product Overview

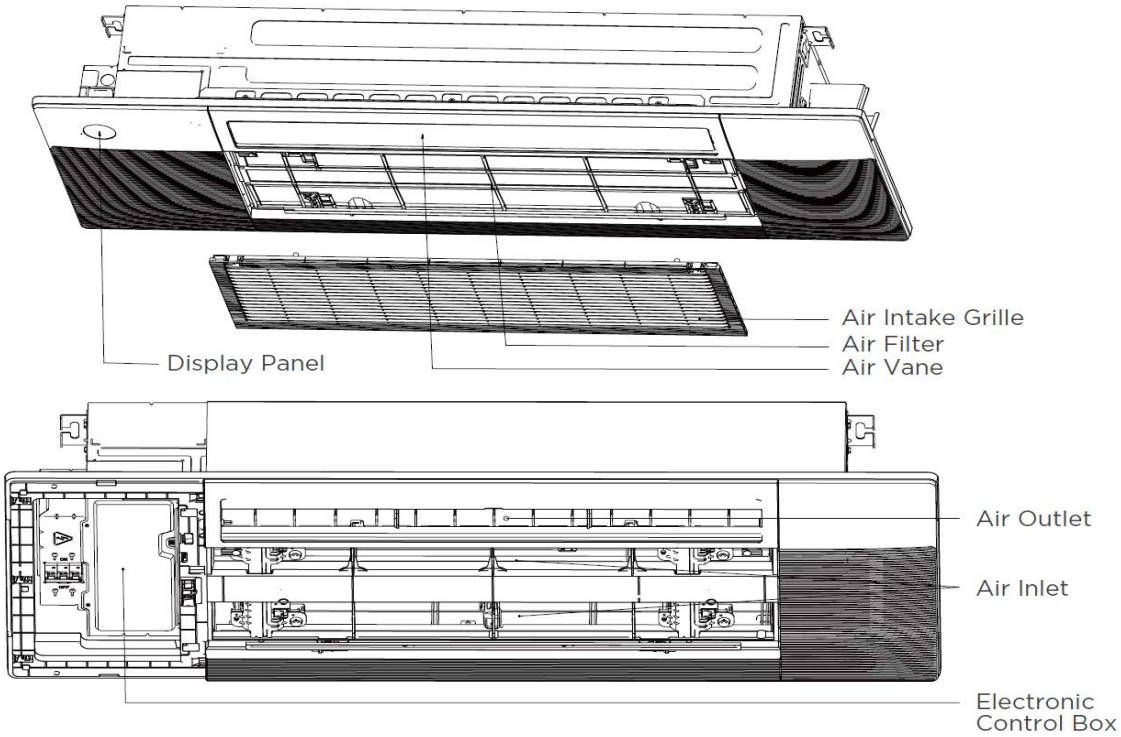
Illustrations in this manual are for explanatory purposes. The actual shape of your unit may be slightly different. The actual shape shall prevail.



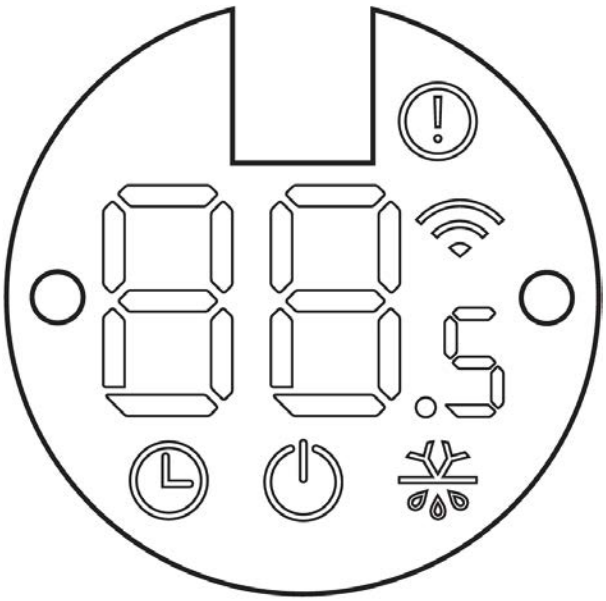
1. Display Panel
2. Circuit Breaker
3. Installation Bracket
4. Drain Pipe
5. Air Inlet (w/ air filter)
6. Air Outlet (Airflow Louver)
7. Remote Control
8. Remote Control Holder
9. Connection Cable
10. Refrigerant Piping
11. Outdoor Unit Power Cable
12. Outdoor Unit

2.3 Unit Parts

Illustrations in this manual are for explanatory purposes. The actual shape of your unit may be slightly different. The actual shape shall prevail.



2.4 Indoor Unit Display



"" When timer is set.

"" When the unit is on.

"" Alarm indicator

"" When wireless control feature is activated.

"" When pre-heating/defrost feature is activated.

"88.5" Displays temperature, operation features, & error codes.

"FP" When 46°F/8°C heating feature is turned on.

"CL" When active clean feature is turned on.

"AP" When wireless module enters AP mode.

"FC" When forced cooling feature is turned on.

2.5 Operating Features

NOTE: Every time the unit is powered on, a buzzing sound will be heard to indicate that the product has been powered on normally. If there is no sound, it is possible that the unit is performing abnormally. Power on again or check the circuit. The actual functions are subject to the product you purchased; check the indoor display and remote control of your unit. See the remote control manual for more features.

Default Setting

When the unit restarts after a power failure, it will default to the factory settings (AUTO mode, AUTO fan, 76°F (24°C)). This may cause inconsistencies on the remote control and unit panel. Use your remote control to update the status.

Auto-Restart

In case of power failure, the system will immediately stop. When power returns, the operation light on the indoor unit will flash. To restart the unit, press the ON/OFF button on the remote control. If the system has an auto-restart function, the unit will restart using the same settings.

Three-Minute Protection

A protection feature that prevents the unit from being activated for approximately 3 minutes when it restarts immediately after operation.

Louver Angle Memory Function

Some models are designed with a louver angle memory function. When the unit restarts after a power failure, the angle of the horizontal louvers will automatically return to the previous position. The angle of the horizontal louver should not be set too small as condensation may form and drip into the machine. To reset the louver, press the manual button, which will reset the horizontal louver settings.

Active Clean Function

The Active Clean Technology washes away dust when it adheres to the heat exchanger by automatically freezing and then rapidly thawing the frost. A distinctive sound will be heard when this occurs and is not cause for alarm.

The Active Clean operation is used to produce more condensed water to improve the cleaning effect, and the cold air will blow out. After cleaning, the internal wind wheel then keeps operating with hot air to blow-dry the evaporator, thus keeping the inside clean.

When this function is turned on, the indoor unit display window shows "CL". After 20 to 30 minutes, the unit will turn off automatically and cancel the Active Clean function.

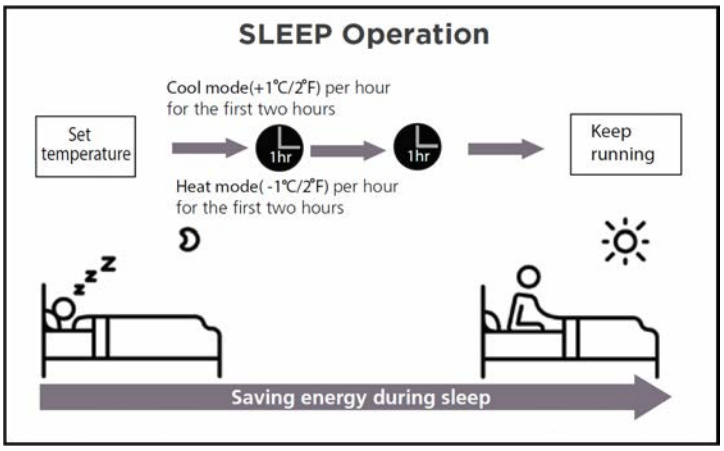
For some units, the system will start a high temperature cleaning process, and the temperature of the air outlet is very high, leading to higher room temperature. Stay away during this process.

Sleep Operation

The SLEEP function is used to decrease energy use while you sleep (and don't need the same temperature settings to stay comfortable). This function can only be activated via remote control, and is not available in FAN or DRY mode.

Press the SLEEP button when you are ready to go to sleep. When in COOL mode, the unit will increase the temperature by 2°F (1°C) after 1 hour, and will increase an additional 2°F (1°C) after another hour.

When in HEAT mode, the unit will decrease the temperature by 2°F (1°C) after 1 hour, and will decrease an additional 2°F (1°C) after another hour. The sleep feature will stop after 8 hours and the system will keep running in the final setting.



Lifting Panel Operation

In standby mode, press the "Mode" and "Down" buttons simultaneously for 3 seconds and the remote control will display "F2". When setting the panel status, press the "Up" or "Down" buttons on the remote to control the rise or fall of the grille, and press any other button to exit the setting.

The up and down height of the panel can reach a maximum of 4.9ft (1.5m). During the decline, if the grille encounters an obstacle, it will stop. During the ascending process, if the grille is blocked and does not rise to the correct height or a finger is pinched, it will automatically descend after a period of time then ascend again. If the grille is blocked 3 times, the display panel will report an error and prompt for manual processing.

3 INDOOR UNIT INSTALLATION

Heat Exchanger Dust Removal Function:

This feature helps keep the outdoor coil clean and may extend the duration between regular maintenance intervals depending on local conditions. When the unit is turned off, a 10-second delay occurs first, then the outdoor fan runs in reverse rotation for 70 seconds to blow off loose accumulated dust and debris.

Breeze Away

This feature redirects airflow from blowing directly on the body.

Energy Saving Tips:

- Do not set the unit to excessive temperature levels.
- While cooling, close the curtains to avoid direct sunlight.
- Doors and windows should be kept closed to keep cool or warm air in the room.
- Do not place objects near the air inlet and outlet of the unit.
- Clean the air filter every two weeks.
- Adjust louvers properly and avoid direct airflow.
- Closing curtains during heating also helps keep the heat in.
- Doors and windows should be kept closed.

3.1 Installation Location

NOTE: Before installing the indoor unit, you must choose an appropriate location. The following are standards that will help you to choose an appropriate location for the unit.

Before Installation:

- Determine the route to move the unit to the installation site.
- First, unseal and unpack the unit. Then, hold the brackets of the hanger (4 pieces) to move the unit. Refrain from exerting force on other parts of the unit, especially the refrigerant piping, water discharge piping, and the plastic parts.

Proper Installation Locations Meet the Following Standards:

☑ Enough room exists for installation and maintenance.

☑ Enough room exists for the connecting the pipe and drainpipe.

☑ There is no direct radiation from heaters.

☑ The air inlet and outlet are not blocked.

☑ The airflow can fill the entire room.

☑ The ceiling is horizontal and its structure can sustain the weight of the indoor unit.

Do NOT install the unit in the following locations:

- ⊘ Areas with oil drilling or fracking.
- ⊘ Coastal areas with high salt content in the air.
- ⊘ Areas with caustic gases in the air, such as hot springs.
- ⊘ Areas that experience power fluctuations, such as factories.
- ⊘ Enclosed spaces, such as cabinets.
- ⊘ Kitchens that use natural gas.
- ⊘ Areas with strong electromagnetic waves.
- ⊘ Areas that store flammable materials or gas.
- ⊘ Rooms with high humidity, such as bathrooms or laundry rooms.

For R454B Refrigerant Charge Amount and Minimum Room Area:

The indoor and outdoor units are designed to be used together. Please check the machine you purchased. The indoor unit should be installed at least 8.3ft/2.3m above from the floor. The minimum room area of operating or storage should be as specified in the following table:

Amin [ft²/m²]	hinst[ft/m]		
mc or mREL [oz/kg]	8.3 / 2.5	8.9 / 2.7	9.9 / 3.0
<=62.6/1.776	12/1.10		
63.4/1.8	53/4.87	49/4.51	44/4.06
70.5/2.0	59/5.41	54/5.01	49/4.51
77.5/2.2	65/5.95	60/5.51	54/4.96
84.6/2.4	70/6.49	65/6.01	59/5.41
91.7/2.6	76/7.03	71/6.51	64/5.86
98.7/2.8	82/7.57	76/7.01	68/6.31
105.8/3.0	88/8.11	81/7.51	73/6.76
112.8/3.2	94/8.65	87/8.01	78/7.21
119.9/3.4	99/9.19	92/8.51	83/7.66
126.9/3.6	105/9.73	97/9.01	88/8.11
134/3.8	111/10.28	103/9.51	93/8.56
141.1/4.0	117/10.82	108/10.02	97/9.01
148.1/4.2	123/11.36	114/10.52	102/9.46
155.1/4.4	129/11.90	119/11.02	107/9.91
162.2/4.6	134/12.44	124/11.52	112/10.37
169.2/4.8	140/12.98	130/12.02	117/10.82
176.3/5.0	146/13.52	135/12.52	122/11.27

Area Formula:

Amin is the required minimum room area in ft²/m²

m_c is the actual refrigerant charge in the system oz/kg

m_{REL} is the refrigerant releasable charge in oz/kg (Applicable to the unit with the refrigerant sensor only.)

h_{inst} is the height of the bottom of the appliance relative to the floor of the room after installation.

⚠ WARNING

The minimum room area or minimum room area of conditioned space is based on releasable charge and total system refrigerant charge.

When the unit detects a refrigerant leak, the minimum airflow of the indoor unit is as follows:

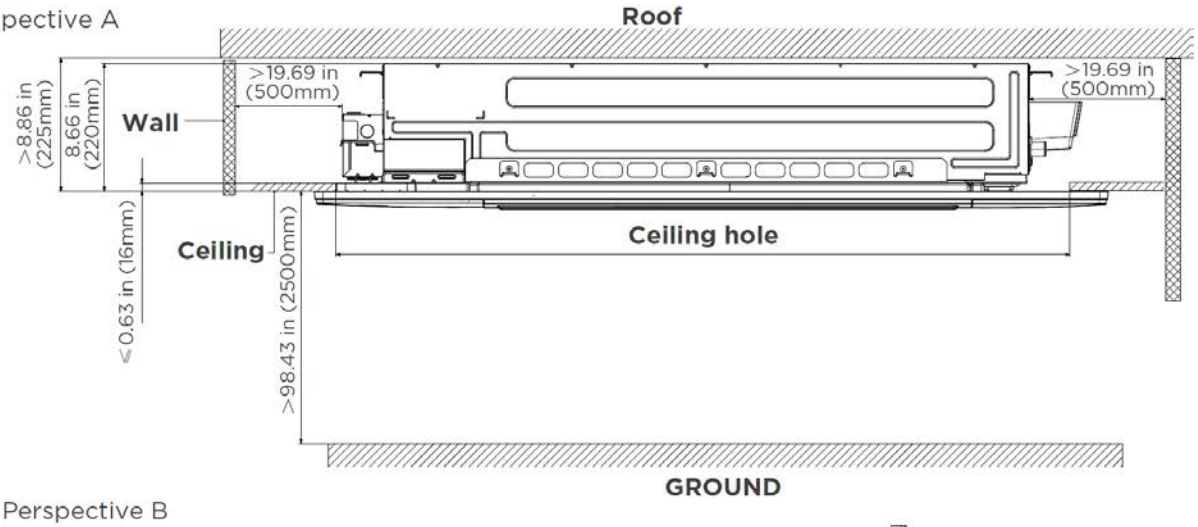
Model	Indoor Unit	Outdoor Unit	Indoor Normal Air Volume	
6K	DIYCASSETTE06HP-230D25-O	DIY-MULTI3-18HP230D-O	540m³/h	318CFM
		DIY-MULTI4-27HP230D-O		
		DIY-MULTI5-36HP230D-O		
		DIY-MULTI6-48HP230D-O		
		DIY-MULTI6-55HP230D-O		
9K	DIYCASSETTE09HP-230D25-O	DIY-MULTI3-18HP230D-O	540m³/h	318CFM
		DIY-MULTI4-27HP230D-O		
		DIY-MULTI5-36HP230D-O		
		DIY-MULTI6-48HP230D-O		
		DIY-MULTI6-55HP230D-O		
12K	DIYCASSETTE12HP-230D25-O	DIYHH-12-HP-C-230D25-O	800m³/h	470CFM
		DIY-MULTI3-18HP230D-O		
		DIY-MULTI4-27HP230D-O		
		DIY-MULTI5-36HP230D-O		
		DIY-MULTI6-48HP230D-O		
		DIY-MULTI6-55HP230D-O		
18K	DIYCASSETTE18HP-230D25-O	DIYHH-18-HP-C-230D25-O	1000m³/h	588CFM
		DIY-18-HP-C-230D25-O		
		DIY-MULTI3-18HP230D-O		
		DIY-MULTI4-27HP230D-O		
		DIY-MULTI5-36HP230D-O		
		DIY-MULTI6-48HP230D-O		
		DIY-MULTI6-55HP230D-O		

3.2 Installation Dimensions

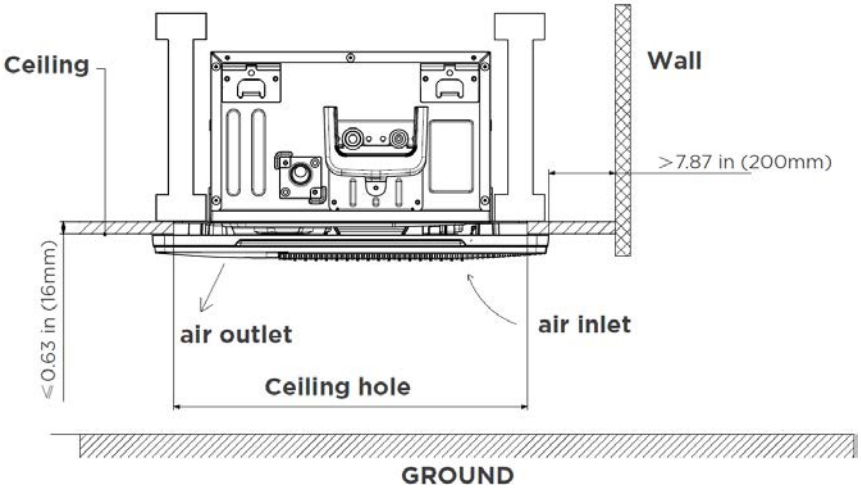
Installation Location Dimensions

Refer to the cardboard template for correct dimensions of the ceiling hole.

Perspective A

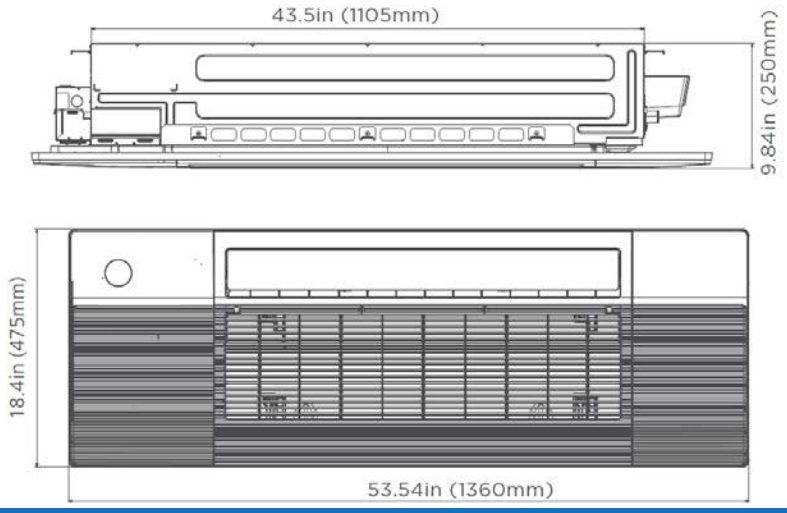


Perspective B

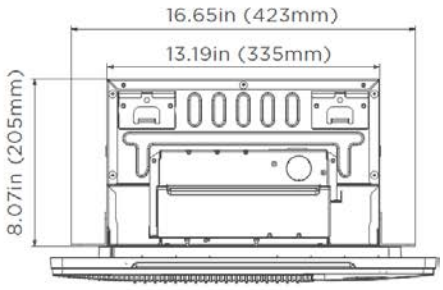


Parts Installation Size

Perspective A



Perspective B

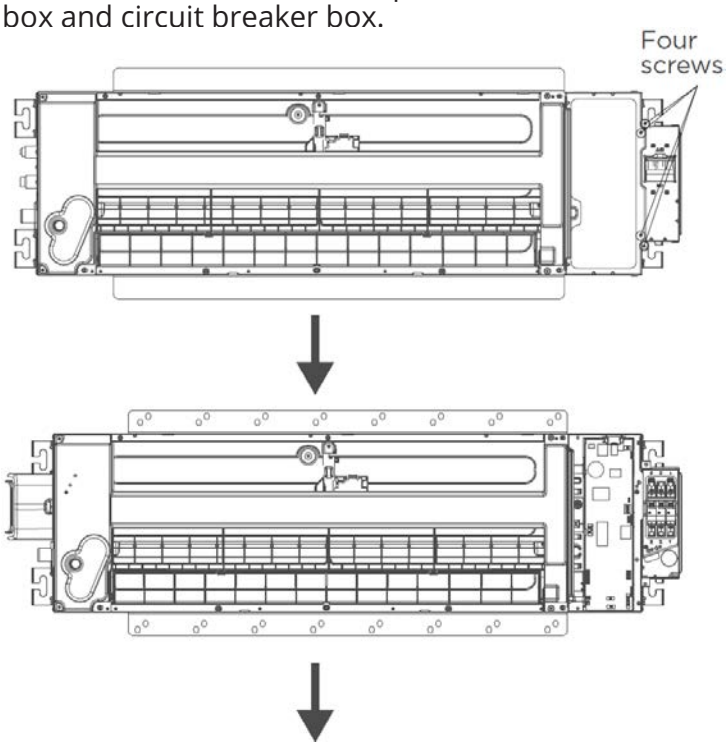


3.3 Installation Steps

Make sure that only the specified components are used for the installation process.

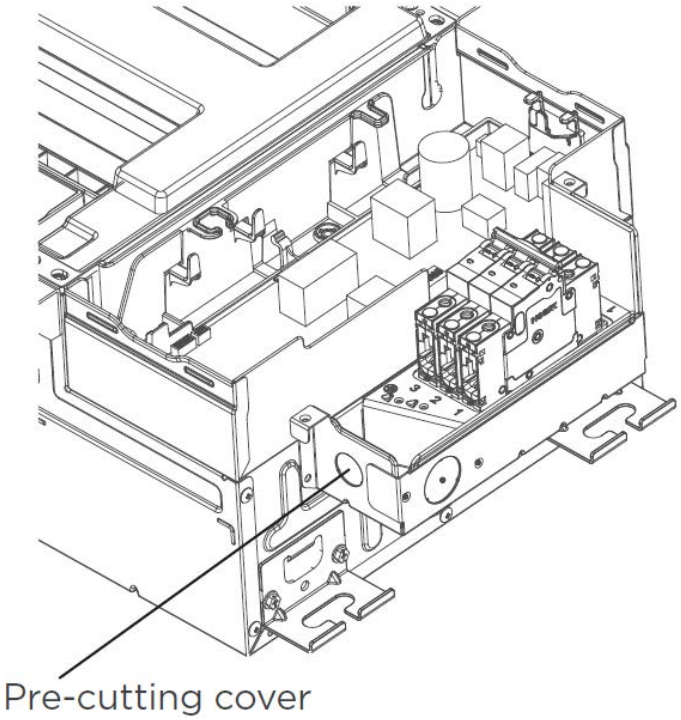
Step 1:

Remove the four screws to open the indoor control box and circuit breaker box.



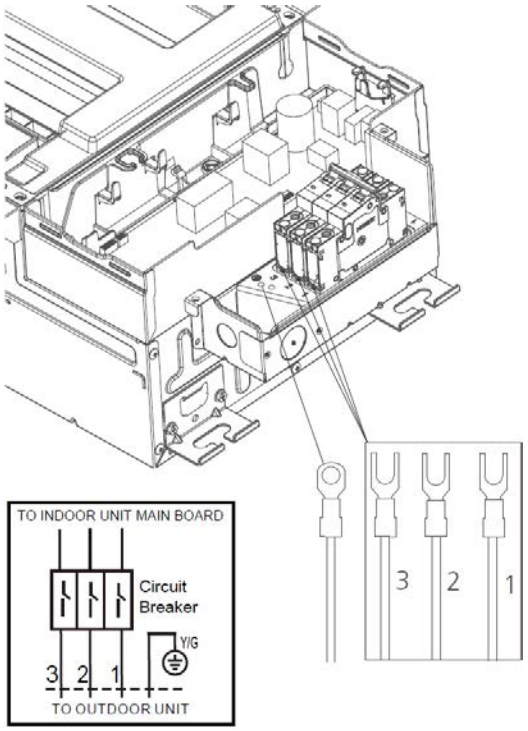
Step 2:

Remove the pre-cutting cover on the circuit breaker box.



Step 3:

Connect the wire to the air breaker according to the wire connecting diagram.

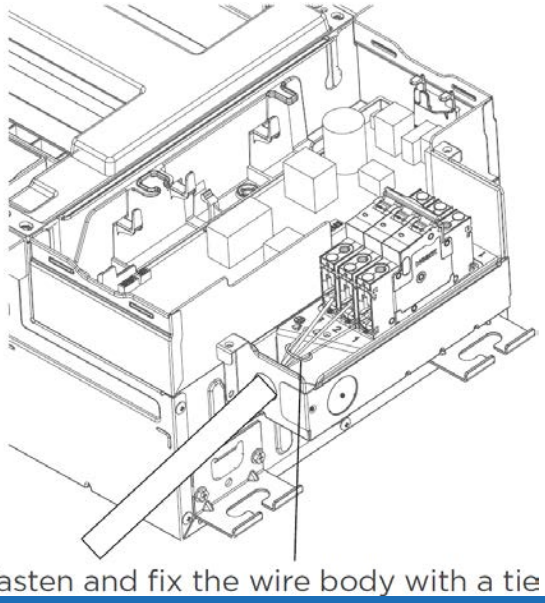


⚠ WARNING

The ground wire should be tightened firmly without loosening.

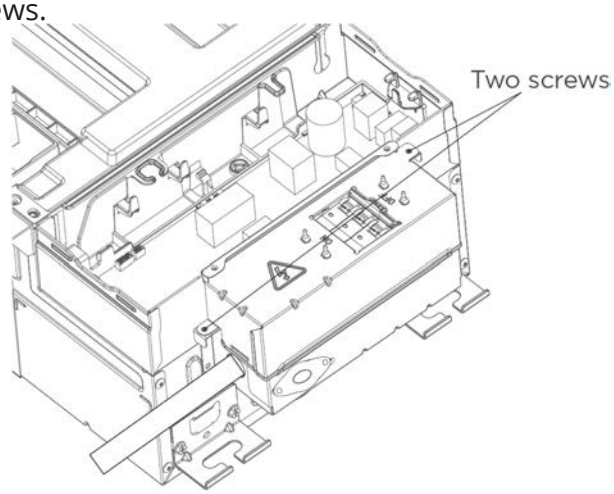
Step 4:

Fasten and fix the wire body with a tie.



Step 5:

Install the circuit breaker cover by fixing the two screws.

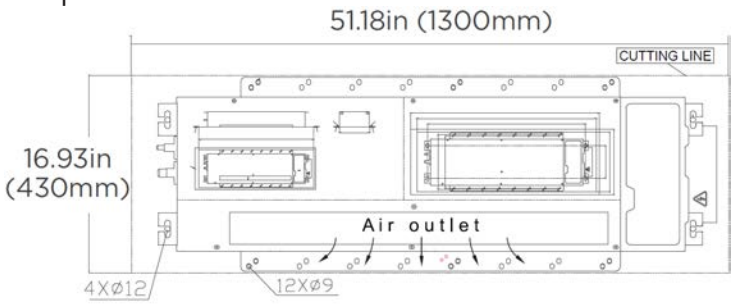


NOTE

After you have finished installing the main body, when choosing where to start, determine the direction of the pipes to be drawn out. Especially in cases where there is a ceiling involved, align the refrigerant pipes, drain pipes, and indoor and outdoor lines with their connection points before mounting the unit.

Step 6:

After you select an installation location, drill a hole with the diameter of .24in (6mm) or less into the roof beam based on the layout of the cardboard template. After drilling the hole, remove the template.



Installation cardboard template

⚠ WARNING

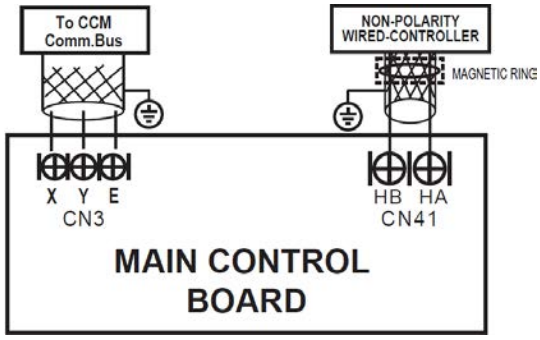
Please follow local regulations and take measures to isolate high voltage and low voltage.

NOTE

Be sure to reserve a length of the connecting wire for periodic maintenance. If there is a connection lug at the end of the shielded wire, the connection lug should be properly grounded.

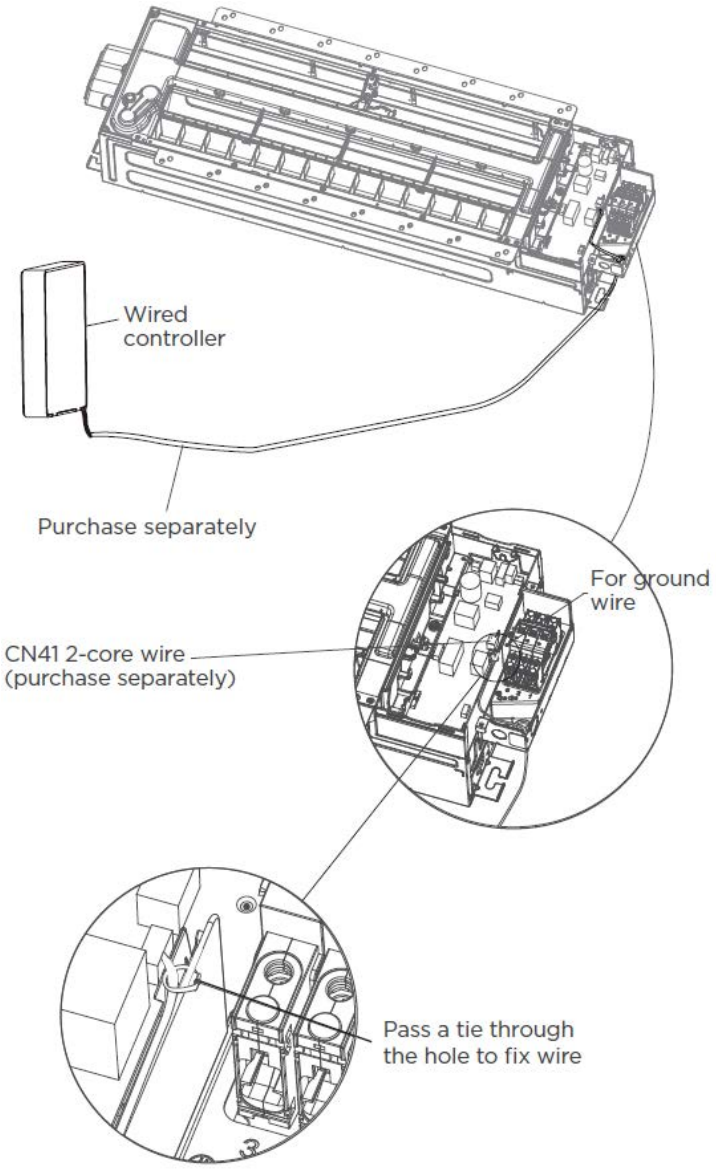
Step 7:

Connect the wire from the control box.



Step 8:

Connect the other side of the connecting cable to the wired controller.



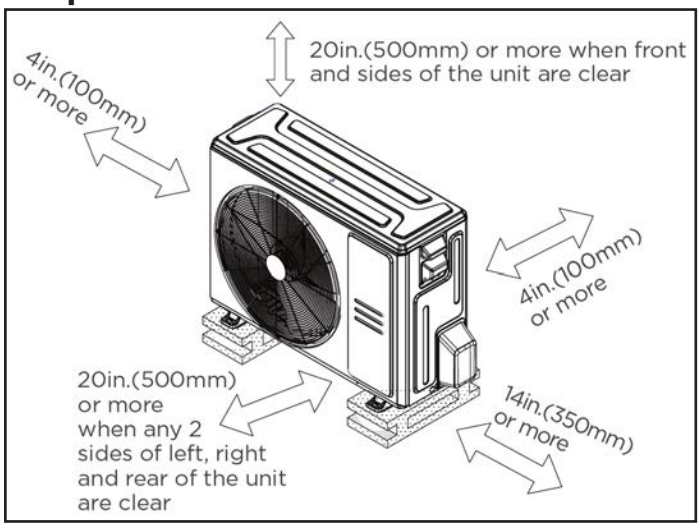
4 OUTDOOR UNIT INSTALLATION

4.1 Installation Location

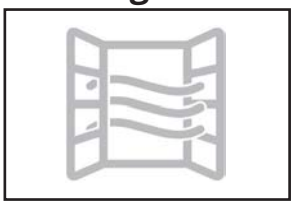
NOTE: PRIOR TO INSTALLATION

Before installing the outdoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

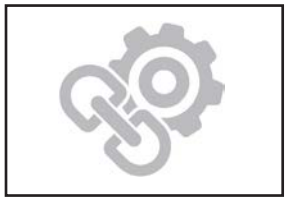
Proper Installation Locations Meet the Following Standards:



☑ *Meets all spatial requirements shown in Installation requirements above,.*



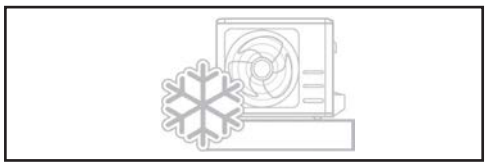
☑ *Good air circulation & ventilation.*



☑ *Firm & solid-the location can support the unit & will not vibrate.*

☑ *Noise from the unit will not disturb other people.*

☑ *Protected from prolonged periods of direct sunlight or rain.*

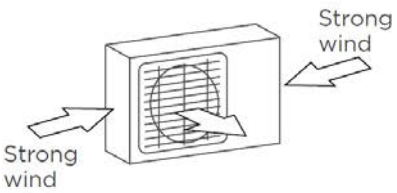


☑ *Where snowfall is anticipated, take appropriate measures to prevent ice buildup & coil damage.*

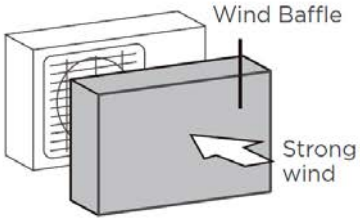
NOTE: Install the unit by following local codes and regulations. These may differ slightly between different regions.

! CAUTION: SPECIAL CONSIDERATIONS FOR EXTREME WEATHER

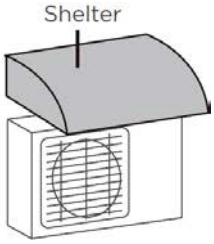
If the unit is exposed to heavy wind:
Install the unit so that the air outlet fan is at a 90° angle to the direction of the wind. If needed, build a barrier in front of the unit to protect it from extremely heavy winds.
If the unit is frequently exposed to heavy rain or snow:
Build a shelter above the unit to protect it from the rain or snow. Be careful not to obstruct air flow around the unit.
If the unit is frequently exposed to salty air (seaside):
Use outdoor unit that is specially designed to resist corrosion.



90° angle to the direction of the wind



Build a wind baffle to protect the unit.



Build a shelter to protect the unit.

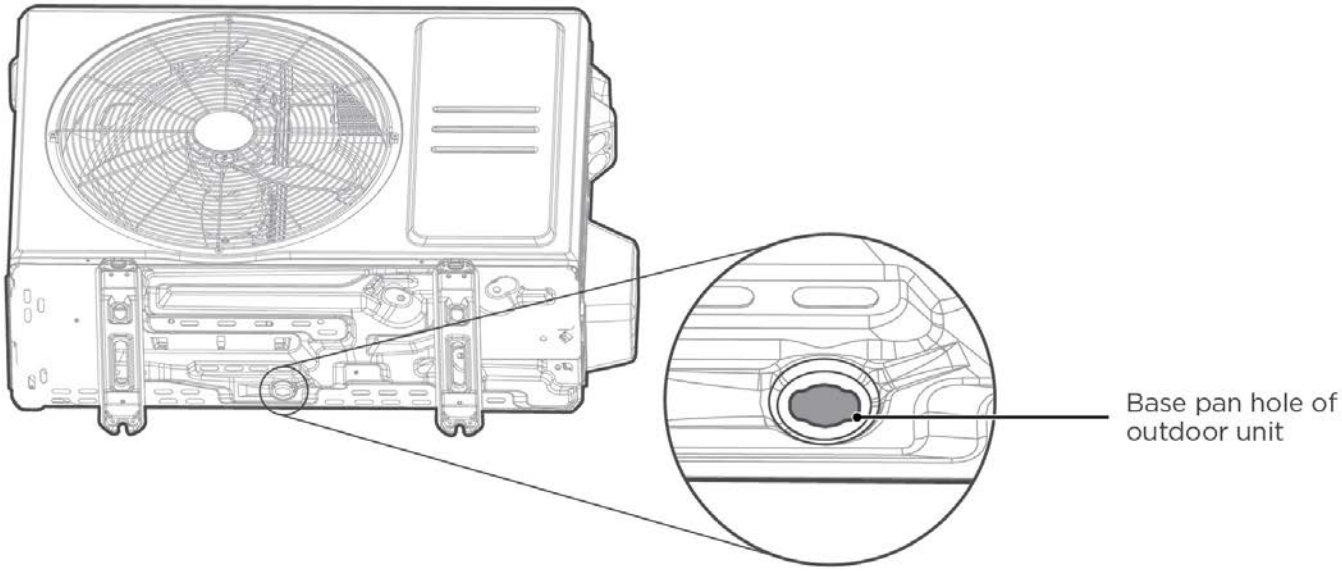
DO NOT install the unit in the following locations:

- ⊘ *Near an obstacle that will block air inlets & outlets.*
- ⊘ *Near a public street, crowded areas, or where noise from the unit will disturb others.*
- ⊘ *In a location exposed to excessive amounts of salty air.*
- ⊘ *Near animals or plants that will be harmed by hot air discharge.*
- ⊘ *Near any source of combustible gas.*
- ⊘ *In a location exposed to large amounts of dust.*

4.2 Install Drain Joint

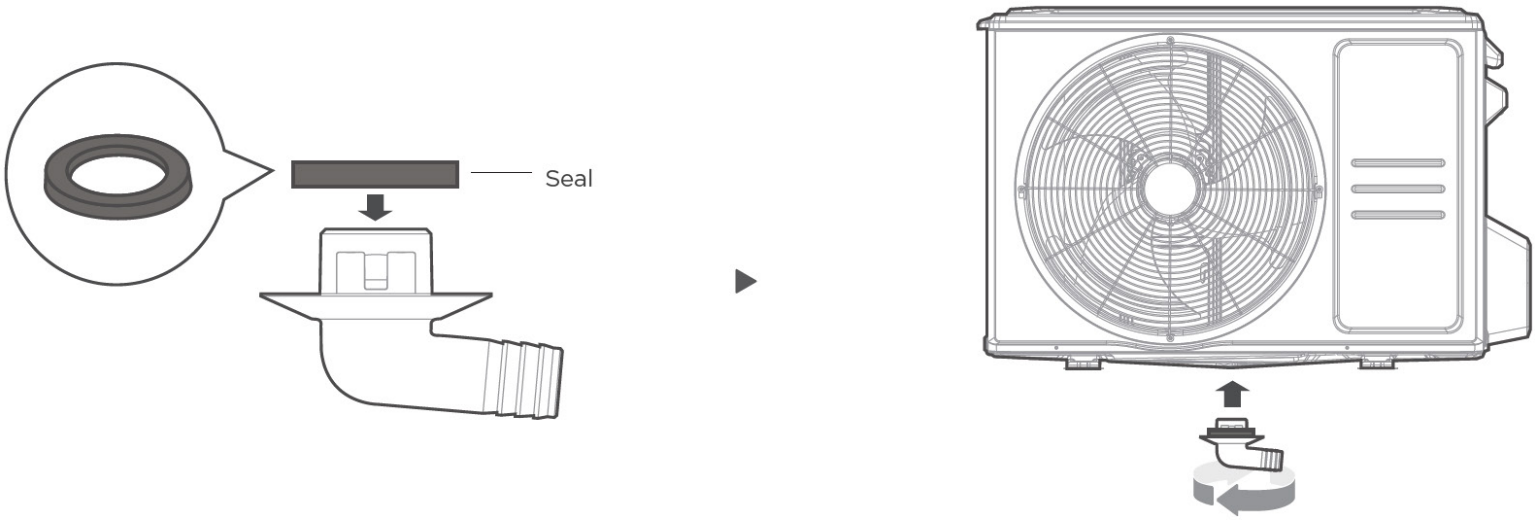
Step 1:

Find the base pan hole on the underside of the outdoor unit.



Step 2:

- Fit the rubber seal on the end of the drain joint that will connect to the outdoor unit.
- Insert the drain joint into the hole in the base pan of the unit. The drain joint will click in place.
- Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.



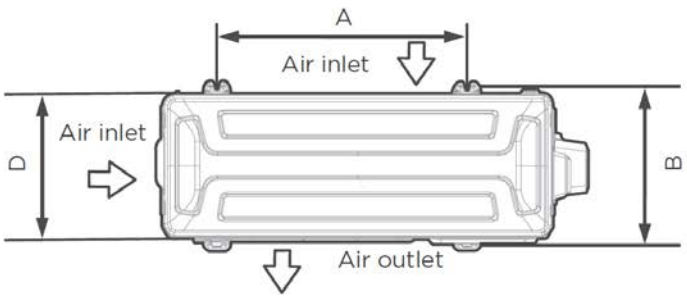
NOTE: In cold climates, ensure that the drain hose is as vertical as possible to ensure swift water drainage. If water drains too slowly, it can freeze in the hose and flood the unit.

4.3 Anchor Outdoor Unit

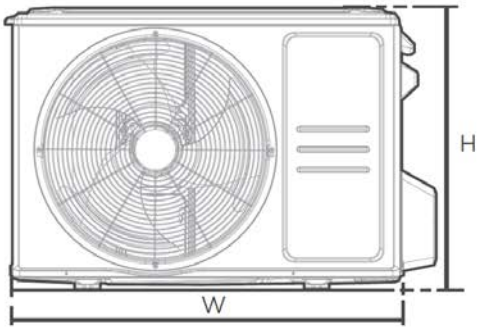
⚠ WARNING

When drilling into concrete, eye protection is recommended at all times.

- The outdoor unit can be anchored to the ground or to a wall-mounted bracket with bolts (M10). Prepare the installation base of the unit according to the dimensions below.
- The following is a list of different outdoor unit sizes and the distance between their mounting feet. Prepare the installation base of the unit according to the dimensions below.



Top view



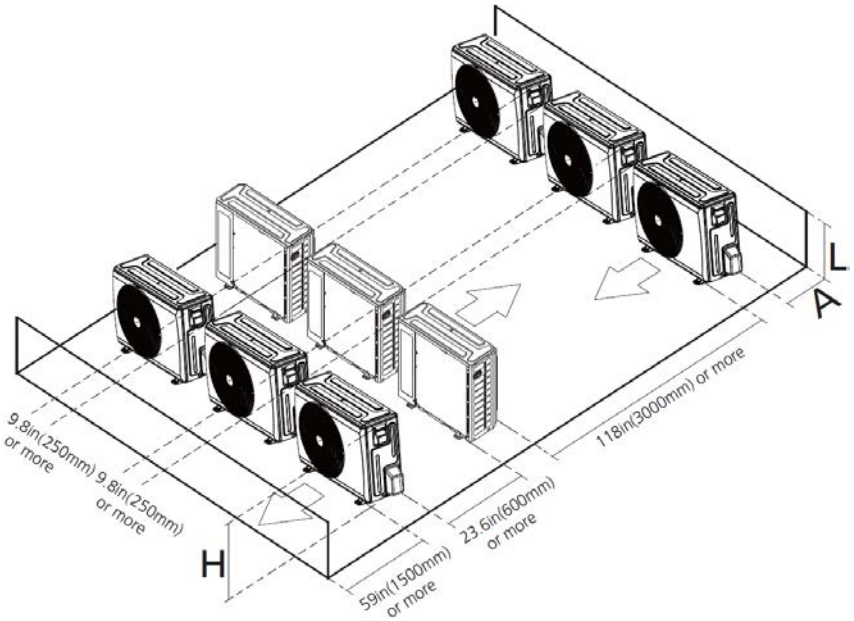
Front view

Outdoor Unit Model	Outdoor Unit Dimensions W x H x D	Mounting Dimensions	
		Distance A	Distance B
DIY-MULTI3-18HP230D-O	35.0in x 26.5in x 13.5in (890mm x 673mm x 342mm)	26.1in (663mm)	13.9in (354mm)
DIY-18-HP-C-230D25-O			
DIY-MULTI4-27HP230D-O	37.2in x 31.9in x 16.1in (946mm x 810mm x 410mm)	26.5in (673mm)	15.87in (403mm)
DIY-MULTI5-36HP230D-O			
DIY-24-HP-C-23025-O			
DIY-36-HP-C-23025-O			
DIY-MULTI6-48HP230D-O	37.5in x 52.5in x 16.34in (952mm x 1333mm x 415mm)	24.96in (634mm)	15.9in (404mm)
DIY-MULTI6-55HP230D-O			

Rows of Series Installation

The relations between H, A, and L are as follows:

	L	A
L ≤ H	L ≤ 1/2H	9.8in (250mm) or more
	1/2H < L ≤ H	11.8in (300mm) or more
L > H	Cannot be installed	



Note:

H: Unit Height

L: Height of the Wall Behind the Unit

A: Distance Between Unit and Wall

If you are installing the unit on the ground or on a concrete platform, do the following:

1. Mark the positions for four expansion bolts based on the dimensions chart.
2. Pre-drill holes for expansion bolts.
3. Clean concrete dust away from the holes.
4. Place a nut on the end of each expansion bolt.
5. Hammer expansion bolts into the pre-drilled holes.
6. Remove the nuts from the expansion bolts, and place outdoor unit on bolts.
7. Put a washer on each of the expansion bolts, then reinstall the nuts.
8. Using a wrench, tighten each nut until snug.

WARNING

When drilling into concrete, eye protection is recommended at all times.

If you are installing the unit on a wall-mounted bracket, do the following:

1. Mark the position of the bracket holes based on the dimensions chart.
2. Pre-drill the holes for the expansion bolts.
3. Clean dust and debris away from the holes.
4. Place a washer and nut on the end of each expansion bolt.
5. Thread expansion bolts through holes in the mounting brackets, put the mounting brackets in position, and hammer expansion bolts into the wall.
6. Check that the mounting brackets are level.
7. If the feet of the outdoor unit have rubber pads already installed, and you're using a local dealer's wall-mounting bracket, remove them before attempting to mount the condenser to the bracket. The mounting bracket has rubber isolating pads on it that will take the place of these.
8. Carefully lift unit and place its mounting feet on the brackets.
9. Bolt the unit firmly to the brackets.

CAUTION

Make sure that the wall is made of solid brick, concrete, or of similarly strong material. The wall must be able to support at least four times the unit's weight.

Note: To reduce vibration of the wall-mounted unit, if allowed, you can install the unit with rubber gaskets to reduce vibration and noise.

4.4 Drainpipe Installation

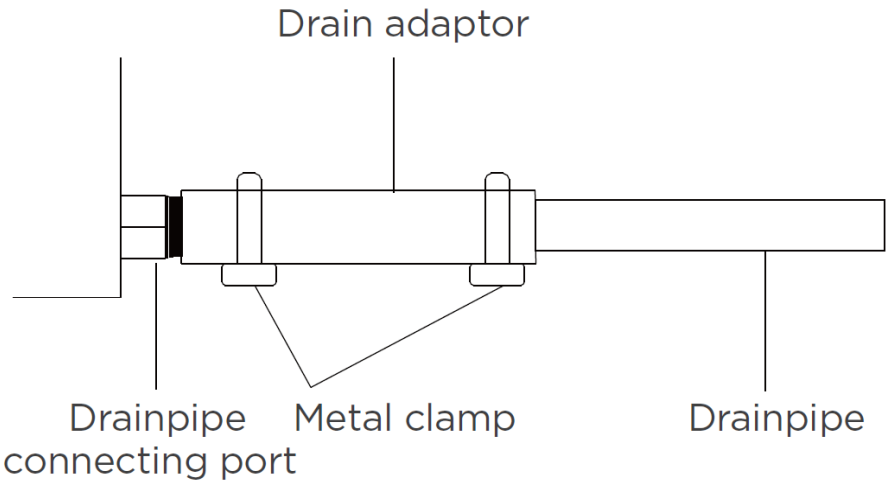
The drainpipe is used to drain water away from the unit. Improper installation may cause unit and property damage.

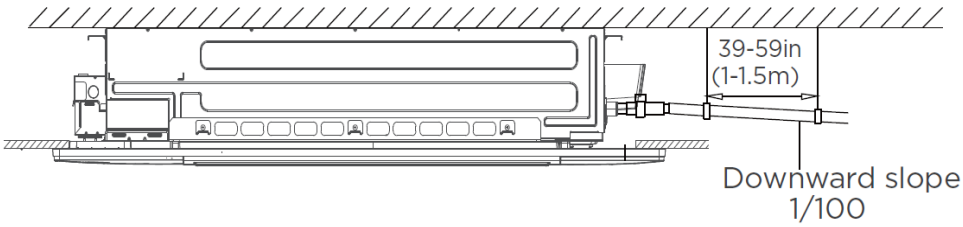
- Insulate all piping to prevent condensation, which could lead to water damage.
- If the drainpipe is bent or installed incorrectly, water may leak and cause a water-level switch malfunction.
- In HEAT mode, the outdoor unit will discharge water. Ensure that the drain hose is placed in an appropriate area to avoid water damage and slippage.
- DO NOT pull the drainpipe forcefully. This could disconnect it.
- Drainpipe installation should comply with all local and national codes and regulations.

Note: Installation requires 3/4in PVC pipe, which can be obtained at your local hardware store or dealer.

Indoor Drainpipe Installation

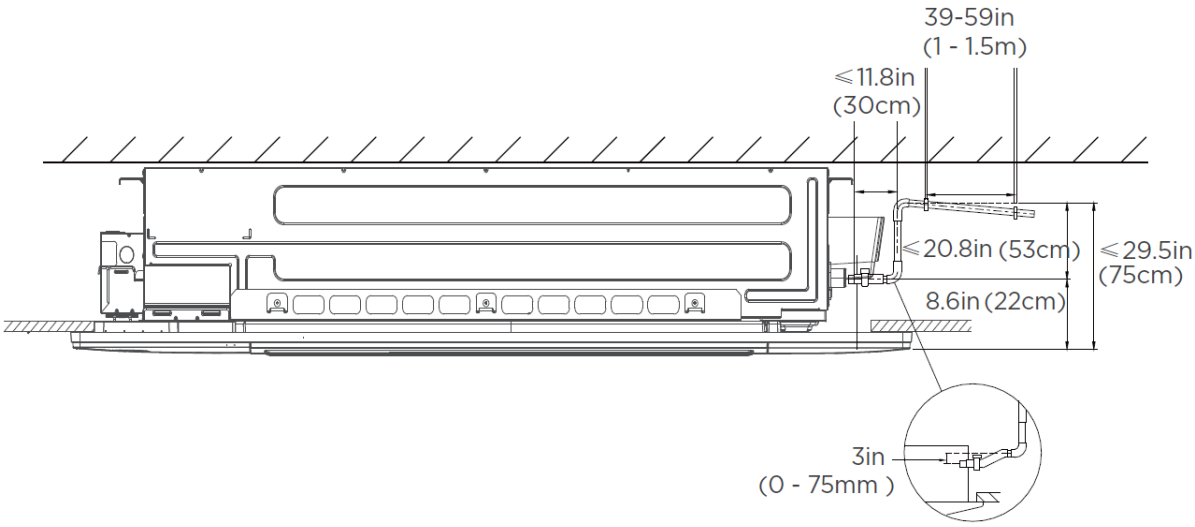
Install the drainpipe as illustrated in the following figure. Connect the drainpipe to the indoor unit via drain adapter.

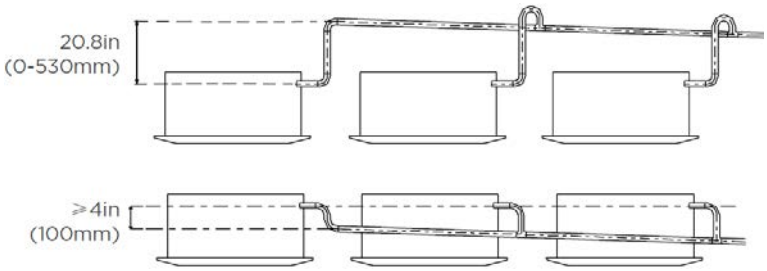




Note on Drainpipe Installation:

- When using an extended drainpipe, tighten the indoor connection with an additional protection tube to prevent it from pulling loose.
- The drainpipe should slope downward at a gradient of at least 1/100 to prevent water from flowing back into the air conditioner.
- To prevent the pipe from sagging, space hanging wires every 39-59in (1-1.5m).
- If the outlet of the drainpipe is higher than the body's pump joint, provide a lift pipe for the exhaust outlet of the indoor unit. The lift pipe must be installed no higher than 20.8in (53cm) from the drain port on the cassette and the distance between the unit and the lift pipe must be less than 11.8in (30cm). Incorrect installation could cause water to flow back into the unit and flood.
- To prevent air bubbles, keep the drain hose level or slightly tiled up (< 3in/75mm).





Pass the drain hose through the wall hole. Make sure the water drains to a safe location where it will not cause water damage or a slipping hazard.

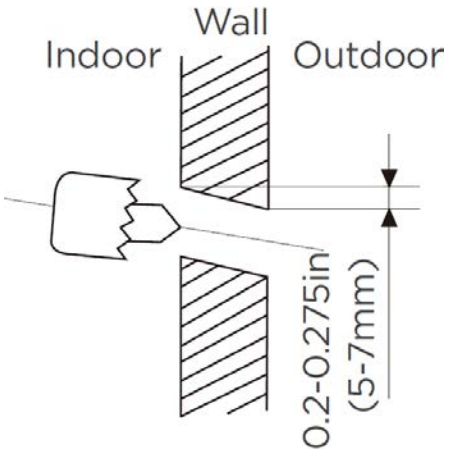
NOTE:
The drainpipe outlet should be at least 1.9in (50mm) above the ground. If it touches the ground, the unit may become blocked and malfunction. If you discharge the water directly into a sewer, make sure that the drain has a U or S pipe to catch odors that might otherwise come back into the house.

Drill Wall Hole

1. Using a 2.5in (65mm) or 3.54in (90mm) core drill, drill a hole in the wall. Make sure that the hole is drilled at a slight downward angle, so that the outdoor end of the hole is lower than the indoor end by about 0.2-0.275in (5mm-7mm). This will ensure proper water drainage.
2. Place the protective wall cuff in the hole. This protects the edges of the hole and will help seal it when you finish the installation process.

! CAUTION

When drilling the wall hole, make sure to avoid wires, plumbing, and other sensitive components.



NOTE: When the gas side connective pipe is Φ5/8in (16mm) or more, the wall hole should be 3.54in (90mm).

5 PANEL INSTALLATION

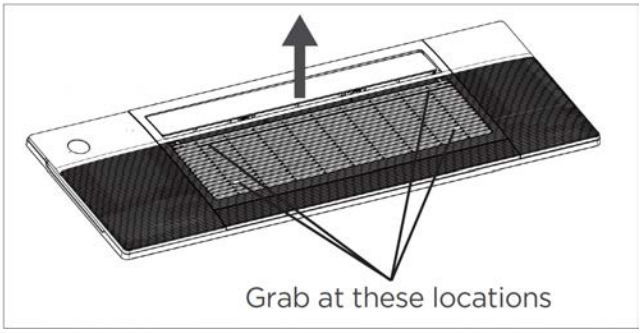
Step 1: Prepare Ceiling

1. Drill 16.93in x 51.18in (430mm x 1300mm) hole into the ceiling based on the layout of the installation board. The center of the ceiling opening should match the center of the body of the indoor unit. **NOTE: In order to keep the ceiling level and prevent vibrations, reinforce the strength of the ceiling when necessary.**
2. Once the ceiling is cut, remove the installation board.

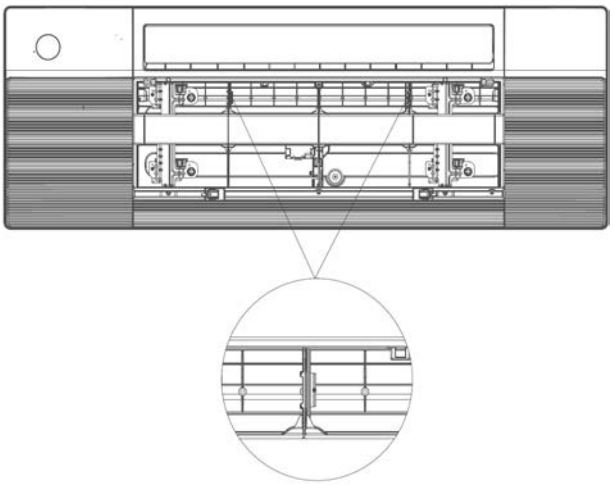
Step 2: Panel Installation

NOTE:
The air grille received by the customer is not tightened by the wire rope, but is specially designed to be loose for easy installation.

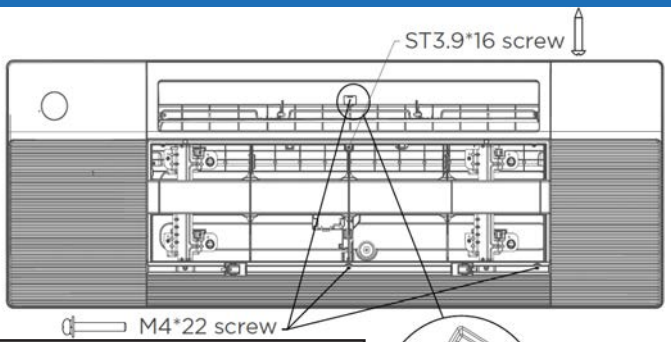
1. Grab the air grille with your fingers and pull it out slowly in the direction of the arrow.



2. Pull the panel grille out of the panel, and fix the cassette panel to the one-way cassette with the two plastic buckles.



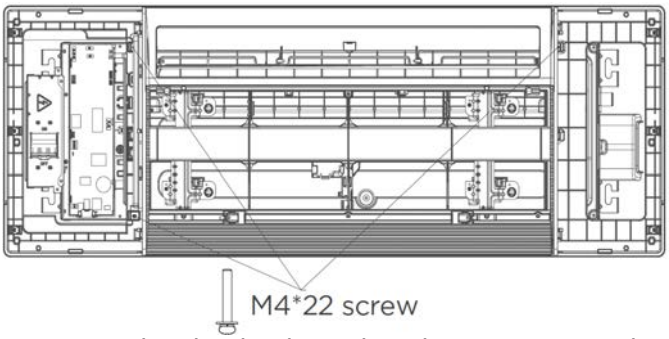
3. Manually rotate the air deflector, and fix the panel to the cassette using 3xM4*22 screws and a ST3.9*16 screw.



NOTE: Eight M4*22 screws are supplied, two of which are spare. Two ST3.9*16 screws are supplied, one of which is spare.

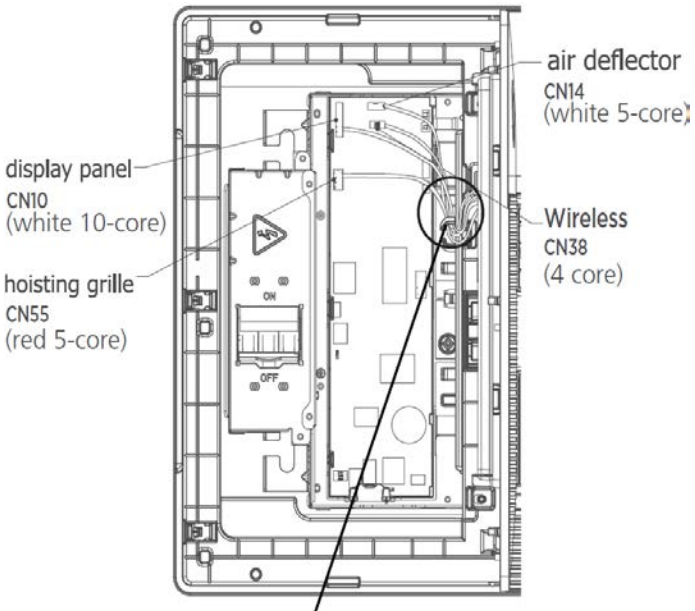
Before fixing this screw, you need to open the screw cover; after fixing this screw, close the cover.

4. Open the two covers on both sides of the panel, and fix the panel to the cassette by using 3xM4*22 screws.

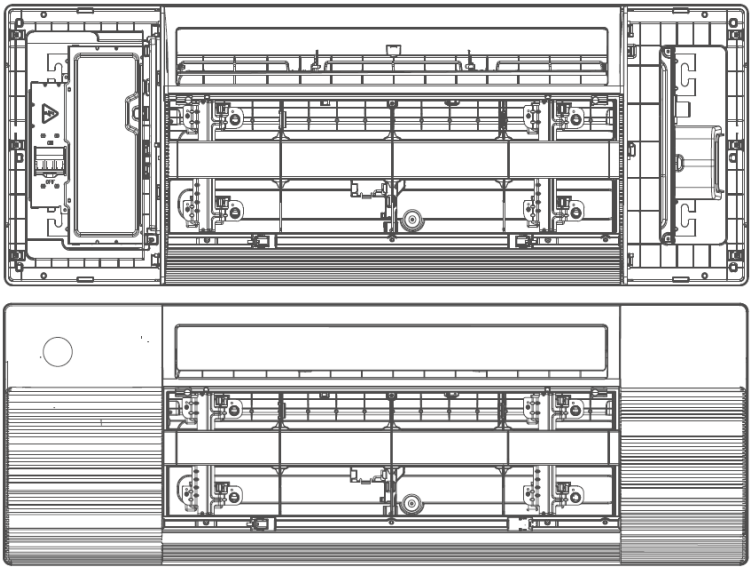


5. Connect the display board to the main control board, four wires are required to connect.

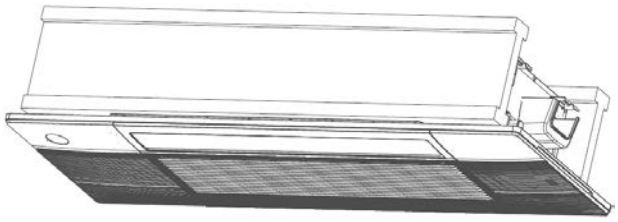
NOTE: The corresponding colors or corresponding pins are connected to each other.



6. Install the control box cover and turn the circuit breaker to ON. Then, close the two plastic covers on both sides of the panel.



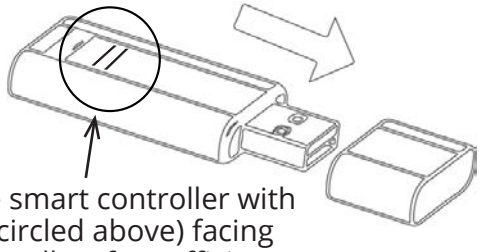
7. During the test-run process, the display will be lit and the air grille will rise automatically.



Step 3: Smart Controller Installation

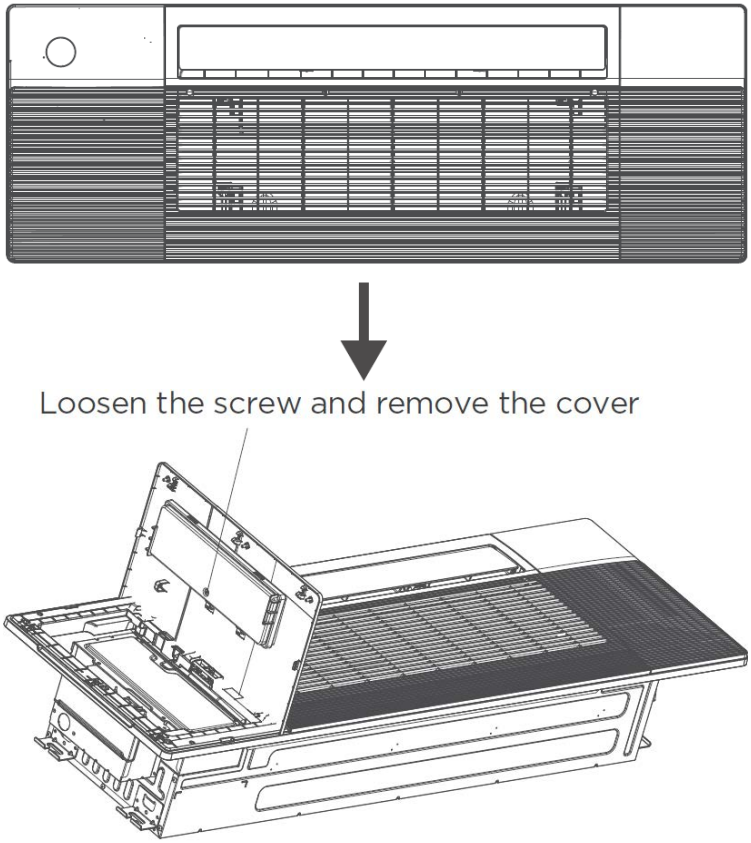
Note: If you choose this configuration, it is recommended to install the smart controller during the panel installation

1. Remove the protective cap of the smart controller.



Install the smart controller with the vent (circled above) facing outward to allow for sufficient airflow.

2. Open the cover with the display panel, loosen the screw, and remove the cover.



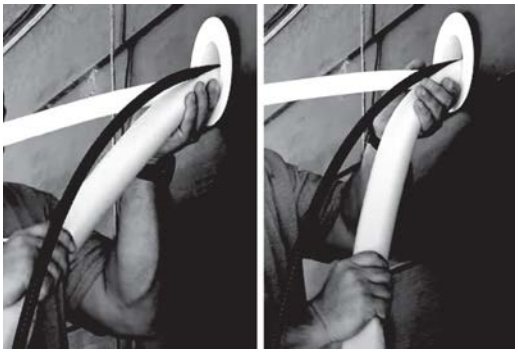
6 REFRIGERANT PIPING CONNECTION

Step 1: Prepare exterior wall Hole

Before the refrigerant piping can be installed and connected to the indoor and outdoor units, some additional steps are required to prepare the exterior.

1. Install finishing ring/cap to the exterior portion of the wall hole.

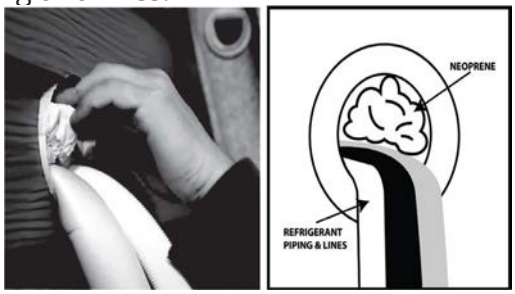
2. Place your hand on the underside of the piping coming through the exterior wall hole (from indoor unit), close to the wall. With your other hand, using even pressure, carefully bend the piping downward toward the wall, being mindful not to damage or dent the piping in the process.



! CAUTION

Be extremely careful not to dent or damage the piping while bending it down the exterior wall, as this could negatively affect the performance.

3. Pack the wall hole with the supplied Neoprene (or Spray Foam can be used) to seal the hole, filling any space that was not taken up by the refrigerant piping and lines.



Step 2: Unwind Line Set

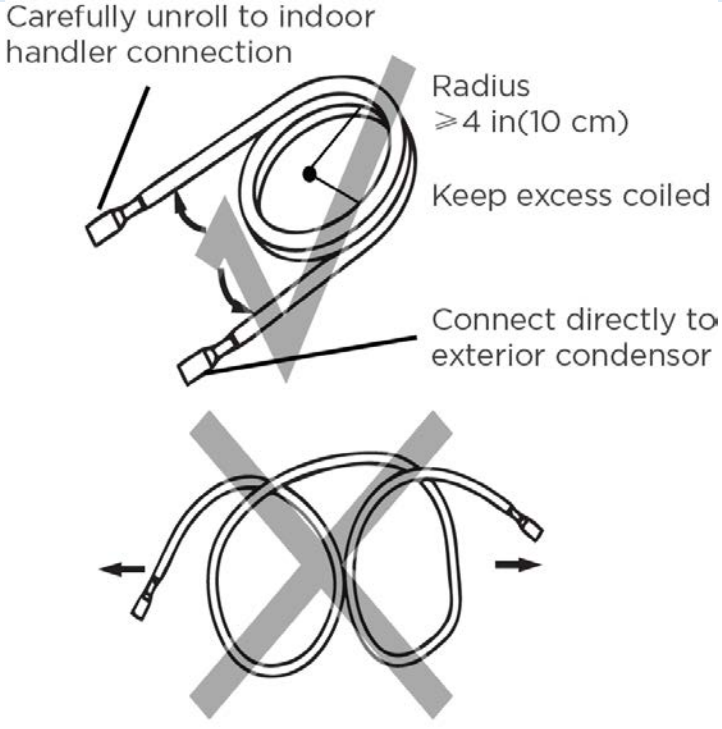
1. Use your hands to slowly unwind the copper piping of one end of the line set. The end you unwind will connect to the indoor unit piping. You should unwind the end until the connectors are close to flat on the ground (with little to no bend). If this is not done, it could make the line set difficult to maneuver when aligning the connectors with the air handler piping. Only unwind as much as necessary for your application, and allow any excess to remain coiled. (See figures below.)

MINIMUM BEND RADIUS

When bending connective refrigerant piping, it needs to have a minimum bend radius of 4 inches.

! CAUTION

If the pipe is repeatedly bent or extended, it will become hard and difficult to manipulate. Avoid bending or extending the pipe more than 3 times, or excessively, as it could break.



Step 3: Connect Line Set to Indoor Unit

Tools Needed:

NOTE: Depending on the capacity rating of your unit, (12K, 18K, 24K, 36K) the wrench sizes needed will vary. Refer to the table below (the unit uses metric sizes, the standard sizes listed are approximations). Based on the availability of wrenches in some of the sizes needed, the recommended method is to use crescent wrenches that can be adjusted to fit the size each step requires.

- Open-ended wrench sizes needed (1x of each of these)

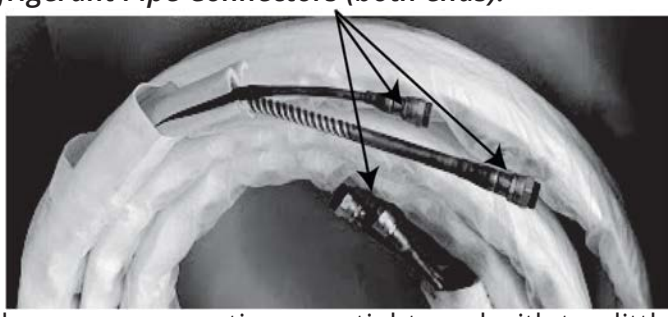
12K & 18K	24K & 36K
• 7/8" (22mm) • 15/16" (24mm) • 1" (26mm)	• 3/4" (19mm) • 15/16" (24mm) • 1" (26mm) • 1-1/8" (29mm) • 1-1/4" (31mm)

- 1x HVAC Torque Wrench (if available)
- 1x Allen key, 5mm
- 1x Phillips-Head Screwdriver
- 1x Leak-Detection Spray or soapy water solution (liquid detergent mix, applied by brush or spray bottle)

PLEASE READ THE FOLLOWING BEFORE PROCEEDING TO THE NEXT STEP:

- Follow the detailed instructions for connecting the line set to the indoor unit and outdoor units. We can only provide warranty if the line set is installed correctly as described in the instructions.
- To prevent leaks, ensure that the line set connectors are free of dirt. Moisture or foreign bodies will adversely affect the function of the connectors and could lead to a risk of refrigerant loss (not covered by the warranty).
- Only install the line set outdoors in dry weather.
- The line set must not be plastered over after being installed.
- Always wear work gloves and goggles and use caution when handling refrigerant. Please make sure that refrigerant is never allowed to enter the environment. Improper handling of refrigerant may be harmful to your health.
- The equipment must never be operated without the line set connected, otherwise the equipment will be damaged immediately.
- Line set connections must only be tightened using the appropriate open-ended or crescent (adjustable-type) wrenches.
- **DO NOT** remove the sealing caps and stoppers from the line set or valves until immediately before they are to be connected.
- **DO NOT** smoke during the installation.

Refrigerant Pipe Connectors (both ends):



If the screw connections are tightened with too little torque, they will leak. If they are tightened with too much torque, the screw connections could suffer damage. Please refer to the torque requirements section for more information. If you do not feel confident connecting the line set connectors yourself, it is imperative that you contact the local customer service team or an HVAC professional.

IMPORTANT: The line sets are designed to only be installed once. The seal within the line set cannot be guaranteed if they are installed more than once. This will void the warranty. They also contain a compression fitting seal and do not require a thread sealant (Teflon tape, etc.). Using a sealant may actually cause the connection to leak over time.

Connecting the Line Set to Indoor Unit Piping

1. Do not remove the plastic seals of the piping coming from the indoor unit, or the appropriate line set connector, until immediately before they are to be connected. The plastic seals on each of the connectors should be color-coded to match those connected to.
2. Align the refrigerant pipes correctly, making sure the dimensions of the connecting refrigerant pipe match. Unscrew the seals and place the screw connector of the line set just onto the threads of the piping from the indoor unit and tighten the first few threads by hand.

IMPORTANT: Before you continue, it is essential that you read the following instructions fully and carefully.

TORQUE REQUIREMENTS

1. Excessive force can break the connector or damage the refrigerant piping. You must not exceed the torque requirements shown in the table below.
2. You can find the outer pipe diameter stamped (in inches) on the valve set of the condenser. Refer to this when finding and applying the torque values in the table below.
3. Please note that there may be differences in torque wrenches (i.e. automotive torque wrench vs. an HVAC torque wrench) and that a socket-style wrench cannot be used in this installation.

NOTE: Torque ratings in the table below are to be used if you have access to an HVAC torque wrench. These are available for purchase from online retailers. However, it is possible to complete installation of refrigerant line sets with conventional open-ended/crescent wrenches. It is imperative, however, that you not overtighten the connector, and that once the lines have been fully connected, you follow the steps to check for leaks. If you do not feel comfortable attempting this, please contact a qualified HVAC technician.

3. Using the image below as a guide, and the steps outlined in this paragraph, you will now tighten the nuts of the screw connectors of the line set to the indoor unit. Using two appropriate-sized open-ended wrenches (depending on the dimensions of the connector) or adjustable crescent wrenches, place one of the wrenches on the nut marked "1" and the other wrench on the nut marked "2", as shown in the image below. Now, turn the wrench marked "2" in the direction of the rotational arrows, as shown, while holding the other wrench in place. Continue to tighten the connector until snug.

NOTE: Work quickly and make sure the screw connectors do not become crooked as you tighten them.

***If an HVAC torque wrench is available:** Once the connector is snug, using the torque wrench, tighten the connector to the specified torque rating, as listed in the table to the right (based on pipe/coupling size).

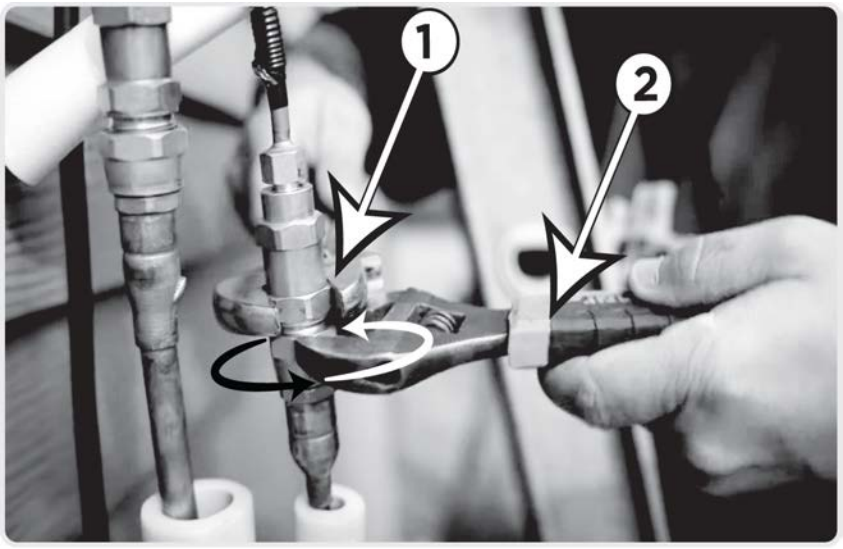
***If an HVAC torque wrench is NOT available:** Using two wrenches you used to tighten the connector, once the connector is snug, turn the wrench slightly beyond that point to torque the connector, but do not overtighten it.

4. Repeat the same process for the second line.

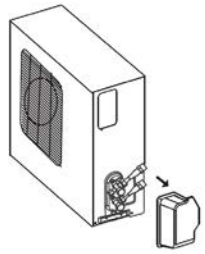
Stamp (on connector)	Coupling Size in (mm)	Tightening Torque lb-ft (N-m)
FA06	3/8" (9.5mm)	18-20 lb/ft (24.4-27.1 Nm)
FA09	1/2" (12.7mm)	30-35 lb/ft (40.6-47.4 Nm)
FA12	3/4" (19.1mm)	45-50 lb/ft (61.0-67.7 Nm)
FA16	1" (25.4mm)	60-65 lb/ft (81.3-88.1 Nm)

! CAUTION

For your safety, always wear goggles and work gloves when connecting the pipes.



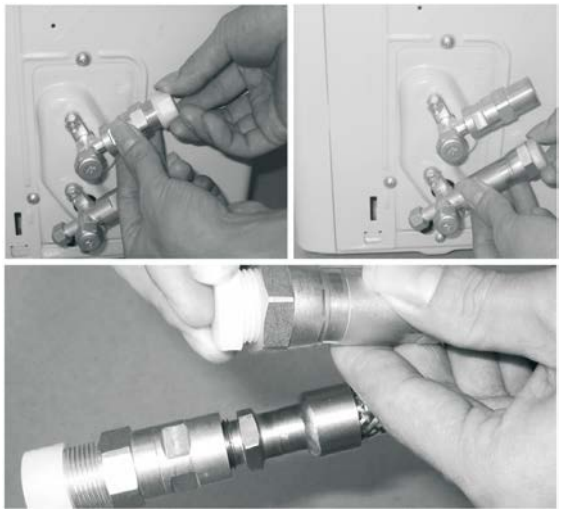
Step 4: Connect Line Set to Outdoor Unit



Model A

Model B

1. Do not remove the plastic seals from the outdoor unit piping connectors and corresponding refrigerant pipes (line set to be attached) until immediately before you connect them.



NOTE: Ensure the adapters attached to the outdoor valves have been tightened properly before attempting to connect the line set.

2. Align the refrigerant pipes so they line up with the corresponding valves and have enough slack.

NOTE: The refrigerant pipes must be connected to the valves with as little stress as possible.

Unscrew the plastic seals and place the screw connector of the refrigerant line just onto the threads of the outdoor unit, tightening the first few threads by hand.

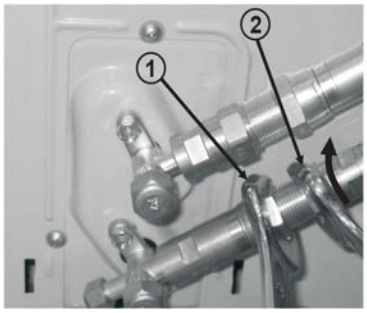
IMPORTANT: Before you continue, it is essential that you read the following instructions carefully.

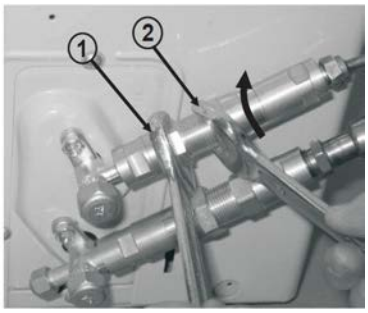
3. Using the first image below as a guide, starting with the bottom screw connector, you will now tighten the line set to the outdoor unit. Using two appropriate sized open-ended wrenches (depending on the dimensions of the connector), or adjustable crescent wrenches, place one of the wrenches on the nut marked "1", and the other wrench on the nut marked "2". Now, turn the wrench on nut "2" in the direction of the rotational arrow, while holding the other wrench in place, as seen in the first image below. Continue to tighten the connector until snug.

NOTE: Work quickly and make sure the screw connectors do not become crooked as you tighten them.

***If an HVAC torque wrench is available:** Once the connector is snug, using the torque wrench, tighten the connector to the specified torque rating, listed in the table on the next page (based on the pipe/coupling size).

***If an HVAC torque wrench is NOT available:** Using the two wrenches you used to tighten the connector, once the connector is snug, turn the wrench slightly beyond that point to torque the connector, but do not overtighten it.





IMPORTANT: The coupling of the outdoor unit uses tapping rings. If you disconnect and reconnect the refrigerant pipes, it could cause a leak. This will also void the warranty.

NOTE: Keep excess refrigerant hose coiled. Wrap with protective tape and store behind the condenser in a horizontal position (flat with the ground).

TORQUE REQUIREMENTS

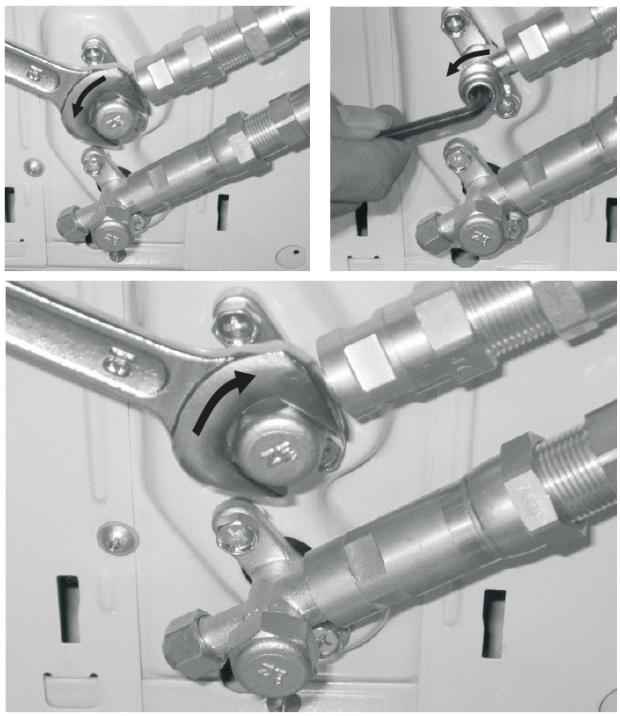
1. Excessive force can break the connector or damage the refrigerant piping. You must not exceed the torque requirements shown in the table below.
2. You can find the outer pipe diameter stamped (in inches) on the valve set of the condenser. Refer to this when finding and applying the torque values in the table below.
3. Please note that there may be differences in torque wrenches (i.e. automotive torque wrench vs. an HVAC torque wrench) and that a socket-style wrench cannot be used in this installation.

NOTE: Torque ratings in the table below are to be used if you have access to an HVAC torque wrench. These are available for purchase from online retailers. However, it is possible to complete installation of refrigerant line sets with conventional open-ended/crescent wrenches. It is imperative, however, that you not overtighten the connector, and that once the lines have been fully connected, you follow the steps to check for leaks. If you do not feel comfortable attempting this, please contact a qualified HVAC technician.

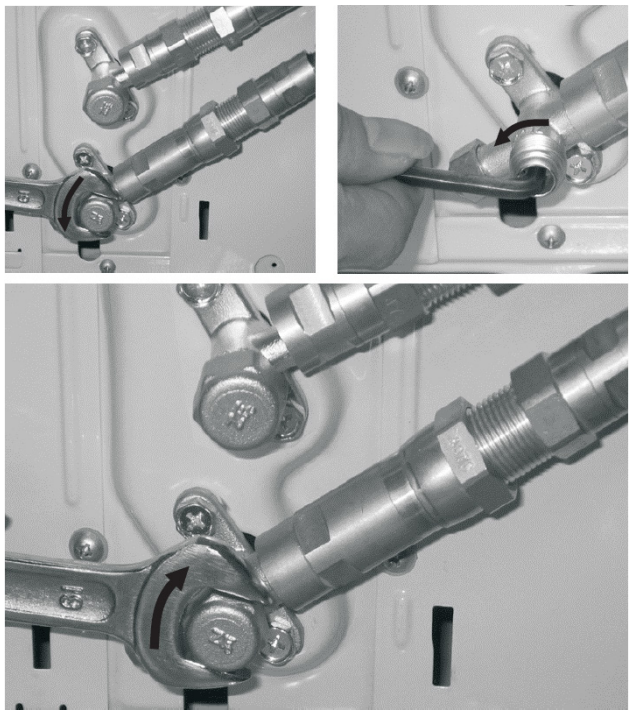
Stamp (on connector)	Coupling Size in (mm)	Tightening Torque lb-ft (N-m)
FA06	3/8" (9.5mm)	18-20 lb/ft (24.4-27.1 Nm)
FA09	1/2" (12.7mm)	30-35 lb/ft (40.6-47.4 Nm)
FA12	3/4" (19.1mm)	45-50 lb/ft (61.0-67.7 Nm)
FA16	1" (25.4mm)	60-65 lb/ft (81.3-88.1 Nm)

Step 5: Opening Outdoor Refrigerant Valves

1. Using the images below as a guide, remove the cover on the top valve using a 10mm open-ended wrench or a crescent (adjustable-type) wrench. Then, insert a 5mm Allen key and open the valve by turning it counter-clockwise as far as it will go. **DO NOT** force it. The valve is now open. Screw the cover back onto the top valve and tighten it well to ensure that it is properly sealed.



2. Using the images below as a guide, repeat the same process for the bottom valve. Remove the cover on the bottom valve using a 19mm open-ended wrench or a crescent (adjustable-type) wrench. Then, insert a 5mm Allen key and open the valve by turning it counter-clockwise as far as it will go. DO NOT force it. Screw the cover onto the bottom valve and tighten it well to ensure that it is properly sealed.



! CAUTION

If the valves are not fully opened, it could cause the system to malfunction and suffer damage.

3. After completing steps 1 and 2, you will now need to check all of the piping connections (at indoor unit and outdoor unit) for leaks. You can do this by using leak detection spray, or applying a soapy water solution (liquid detergent/water mixture) to the connection via a spray bottle or a brush. If any bubbles begin to form, that indicates there is a leak, and the connection needs to be re-tightened. Tighten the connection and recheck it for leaks. Refer to the Electrical and Gas Leak Checks section of this manual for more information.

IMPORTANT:
You will be asked to check for leaks at the piping connections multiple times throughout the following steps of the installation, because the pressures within the lines will change once the unit is turned on and this could reveal leaks not present during the initial check. These are imperative to make sure your connection is not allowing any refrigerant to escape the system. When checking for leaks, if any bubbles form, it indicates the system has a leak and the screw connector needs to be re-tightened. For more information about checking for leaks, refer to the Electrical and Gas Leak Checks section of the manual.

Step 6: Wrap Piping Connections

In this step you will wrap and insulate the exposed line connections coming from the indoor air handler.

IMPORTANT:
Do not complete these steps until all of the refrigerant piping connections have been checked for leaks.

1. Wrap the connectors at the indoor air handler tightly with the supplied sound absorbent pads.

2. Now, place the supplied insulation material over the connectors and exposed refrigerant piping.

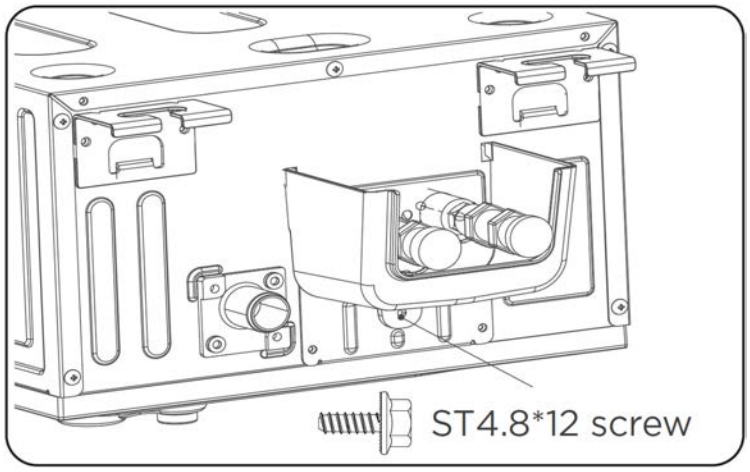
3. Starting where the line set is not covered with the factory plastic (close to the indoor air handler connection), you will wrap the line set upward toward the wall hole, using the supplied non-adhesive U.V. tape. This will cover the insulated line set connections, cables, and drain hose. The drain pipe will need to be at the bottom of the bundle.

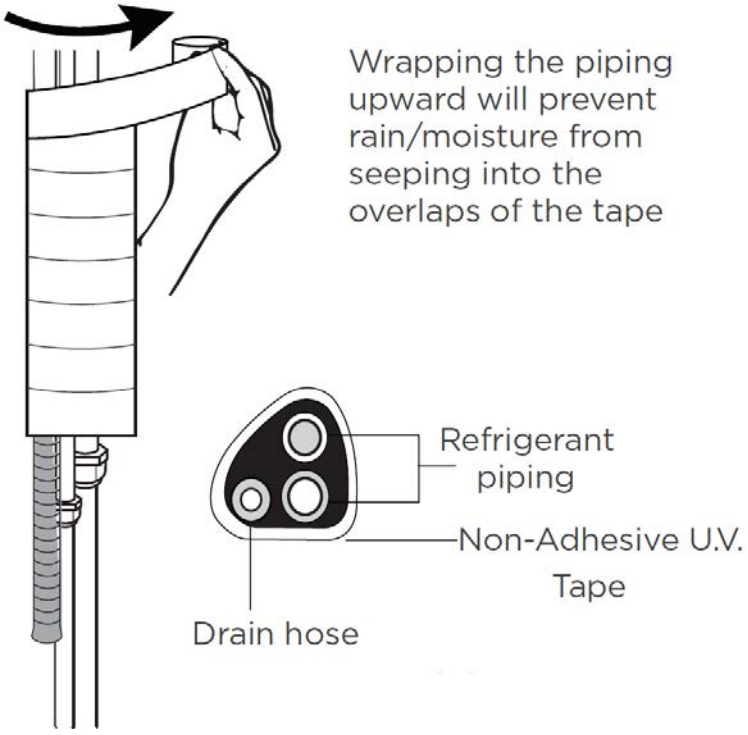
DO NOT wrap the end of the drain hose.

4. Finally, fix the water receiver (supplied in the accessories box) to the indoor unit with a screw.

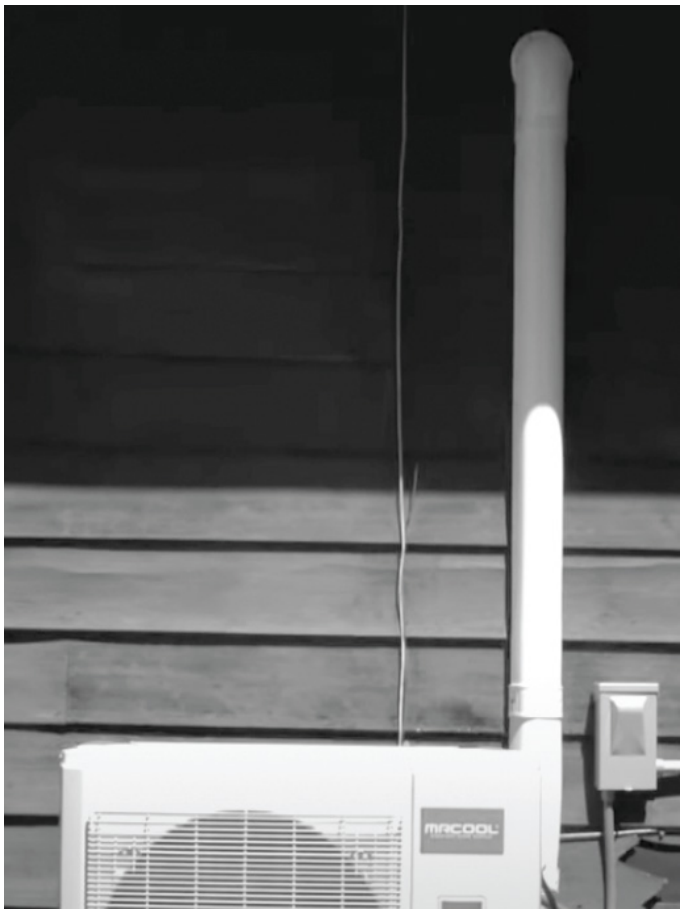
6 REFRIGERANT PIPING CONNECTION

NOTICE
Two ST4.8*12 screws are supplied, one of which is a spare.





If you would like the exterior piping on the side of your home to have a sleeker, more attractive look and add extra protection in the process, you can purchase a line set cover separately. This will encase your refrigerant piping and lines, protecting them from harsh weather conditions and sun exposure, which will extend the life of your system. These covers are available in various sizes to fit your particular application.

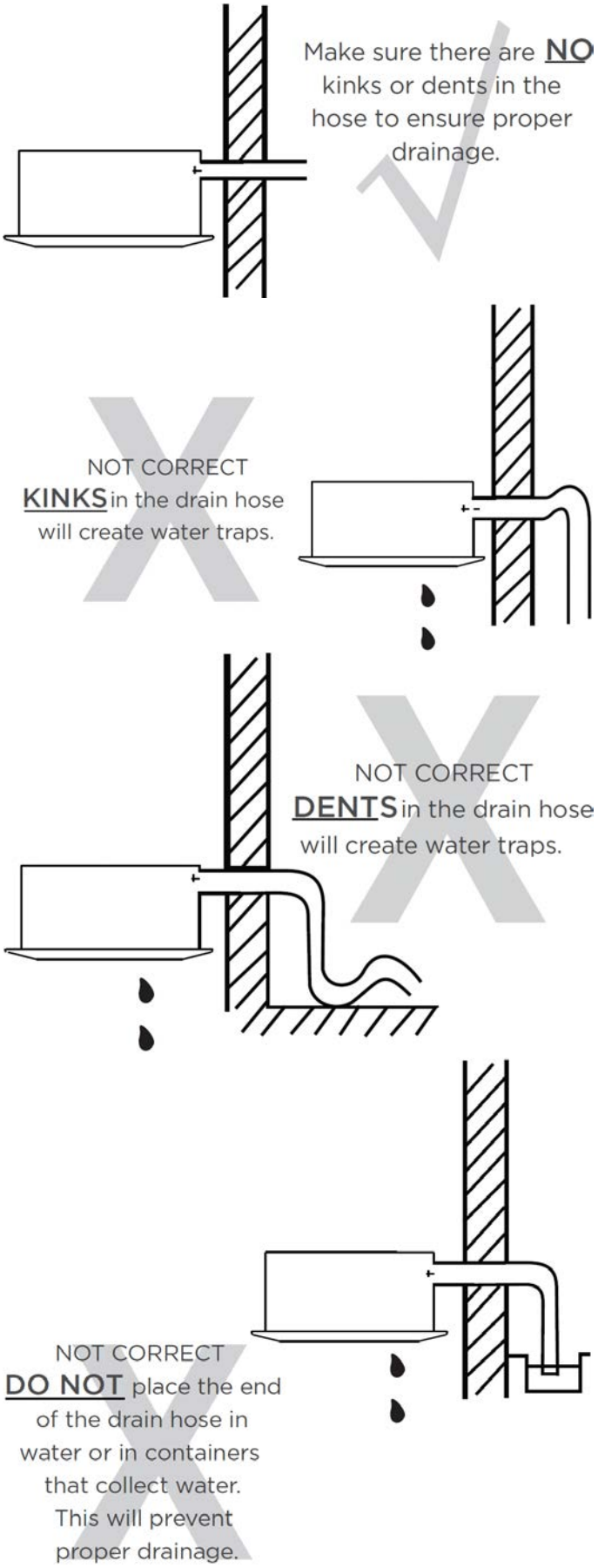


Step 7: Connect Drain Pipe

In this step, you will connect the drain hose extension to the drain hose exiting from the indoor unit that is within the piping bundle you wrapped in the previous steps.

1. Securely connect the drain hose extension to the drain piping from the indoor unit.

2. Using the first example to the right as a guide, ensure your drain pipe is run in a similar manner. The other examples to the right represent things you should avoid when installing your drain pipe.

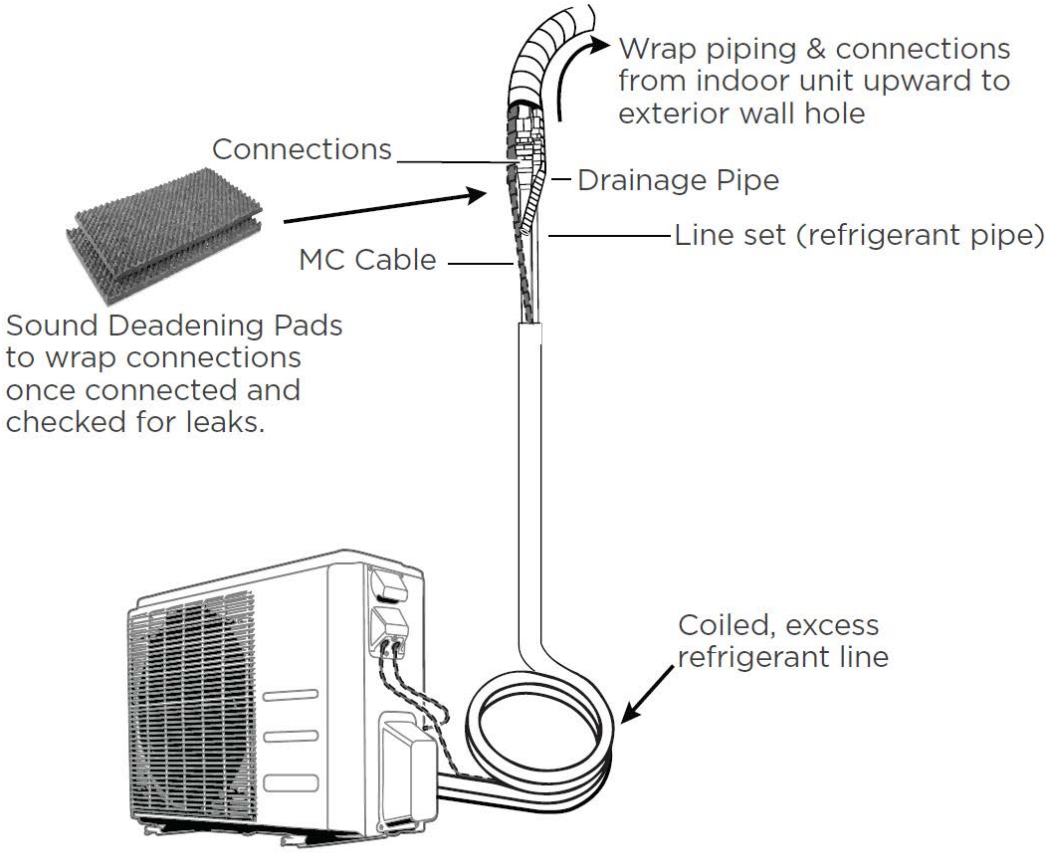


! CAUTION

Make sure to arrange the drain hose correctly.
DO NOT kink the drain hose.
DO NOT create a water trap.
DO NOT put the end of the drain hose in water or a container that will collect water.

ENSURE UNUSED DRAIN HOLE IS PLUGGED
To prevent unwanted leaks, be sure that the factory-installed hollow center rubber plug is installed in the unused drain hole.

6 REFRIGERANT PIPING CONNECTION



BEFORE PERFORMING ELECTRICAL WORK, READ THESE REGULATIONS:

- ⊘ ***DO NOT*** **connect another appliance to the outlet for the unit. Only connect the unit to an individual branch circuit outlet.**
- ⊘ ***DO NOT*** **allow wires to touch or rest against the refrigerant piping, compressor, or any other moving parts within the unit.**

1. All wiring must comply with local and national electrical codes, regulations, and must be installed by a licensed electrician.
2. All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
3. If there is a serious safety issue with the power supply, stop work immediately. Explain the issue to the client, and refuse to continue the installation until the safety issue is properly resolved.
4. Power voltage should be within 90-110% of the rated voltage. An insufficient power supply can cause a malfunction, electrical shock, and/or fire.
5. If connecting power to fixed wiring, a surge protector and main power switch should be installed.
6. The circuit, including any switches, should have a capacity 1.5 times the maximum unit current (amps).
7. A qualified technician must use an approved circuit breaker or switch that disconnects all poles and has a contact separation of at least 1/8in (3mm) incorporated in the fixed wiring.
8. Make sure the unit/system is properly grounded.
9. Every wire must be firmly and securely connected. Loose wiring can cause the terminal to overheat, which could result in a malfunction and/or fire.
10. If the unit has an auxiliary electric heater, it must be installed at least 40in (1m) away from combustible materials.
11. To avoid electrical shock, never touch the electrical components soon after the power supply has been turned off. Always wait 10 minutes or more before touching the electrical components once the power has been turned off.

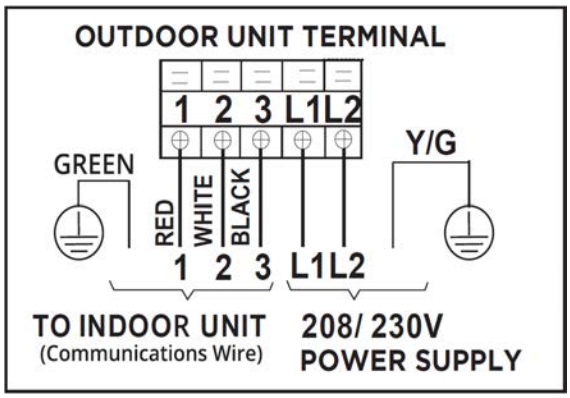
NOTE: The outside unit's terminal block is protected by an electrical wiring cover on the side of the unit. A comprehensive wiring diagram is printed on the inside of the wiring cover.

⚠ WARNING

BEFORE PERFORMING ANY ELECTRICAL WORK, TURN OFF ALL POWER TO THE SYSTEM

Note that the wire colors of this series/model may differ from previous models, other series, and general wiring conventions. All wiring must be performed in accordance with the wiring diagrams shown in the following figure and demonstrated in the images below.

Wire Connecting Diagram



⚠ WARNING

<u>DO NOT</u> MIX UP LIVE AND NULL WIRES.

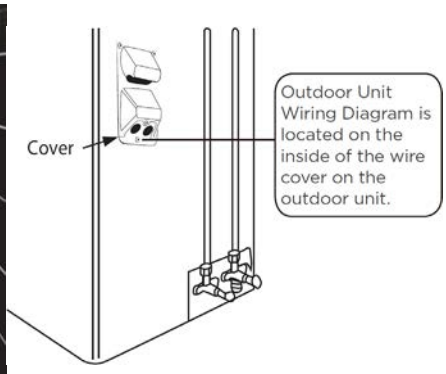
- This is dangerous and could cause the unit to malfunction. Make sure you clearly distinguish the live "L" wires from the other wires.
- All wiring must be performed in accordance with the wiring diagrams shown here.

WIRES AND TERMINALS ARE NUMBERED TO CORRESPOND WITH ONE ANOTHER AS SHOWN BELOW.

NOTICE:

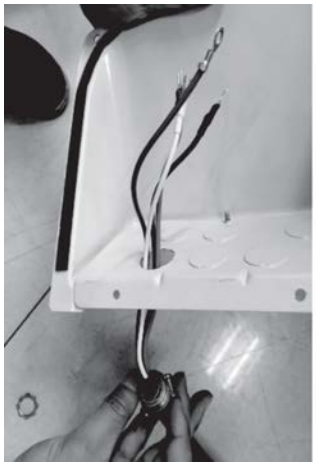
Refer to the wiring diagram in the manual of the outdoor unit for multi-zone system models.

1. Remove the screws from the electrical wiring cover from the outdoor condenser, as shown in the image below, and remove it.



2. Remove the retaining nut from the end of the DIYPRO® cable that you fed through the wall hole earlier in the installation, as shown in the image below.

3. Pull the end of the DIYPRO® cable through the hole of the electrical cover you removed earlier. Refer to the images below.




SELECT THE CORRECT CABLE

- **See table below for gauge requirements**

NOTE: The table below is a standard chart, the AWG ratings and wiring

Minimum Wire Gauge for Power Cables (Single-Zone Systems)

Model Series	Appliance Amps (A)		AWG
	MCA	MOP	Min.
18K	18	20	12

Minimum Wire Gauge for Power Cables (Multi-Zone Systems)

Model Series	Appliance Amps (A)		AWG
	MCA	MOP	Min.
18K	16	25	12
27K	23	25	12
36K	30.5	35	10
48K	40	45	8
55K	43	45	8

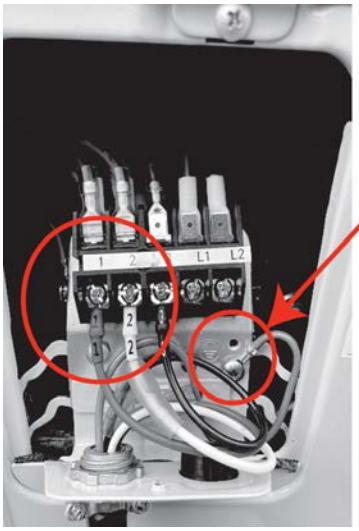
*** Wire size is a recomendation based on the MCA, always follow local codes and inspector recomendations.**

⚠ WARNING

ALL WIRING MUST BE INSTALLED STRICTLY IN ACCORDANCE WITH THE WIRING DIAGRAM.

4. Now, secure the DIYPRO® cable to the electrical cover by pushing the threaded end of the cable into the hole and reinstalling the retaining nut previously removed onto the end of the cable. Refer to the following images.


5. Then, you will connect the wires to the terminal block. Each wire should be numbered and correspond with a connection port on the terminal block. Match up each wire with the correct port, and firmly screw the u-lug of each wire to its corresponding terminal. Now, screw the ground wire into the bottom screw of the terminal block, as shown in the image below.

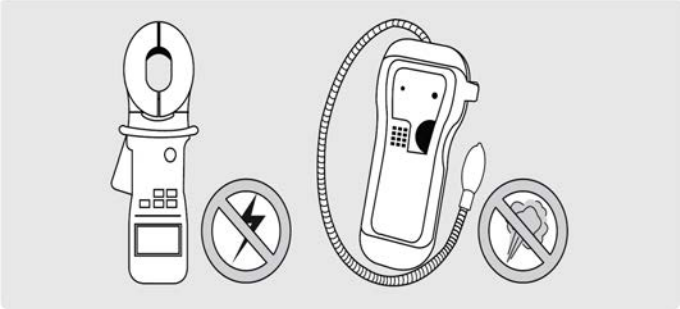


6. Finally, reinstall the electrical wiring cover and secure it by reinstalling the screws you previously removed.

8.1 Electrical & Gas Leak Checks

⚠ WARNING: RISK OF ELECTRICAL SHOCK

All wiring must be installed by a licensed electrician and comply with local, state, and national electrical codes.



Electrical Safety Checks

After installation is complete, confirm that all electrical wiring has been installed in accordance with local and national regulations, and according to the installation manual.

Before Test Run

- Check grounding work
- Measure grounding resistance by visual detection and with a grounding resistance tester. Grounding resistance must be less than 0.1Ω.

NOTE: This may not be required for some locations in North America.

During Test Run

Check for electrical leakage. During the test run, use an electro-probe and multimeter to perform a comprehensive electrical leakage test.

If Electrical Leakage is Detected

If electrical leakage is detected, turn off the unit immediately and call a licensed electrician to find and resolve the cause of the leakage.

NOTE: This may not be required for some locations in North America.

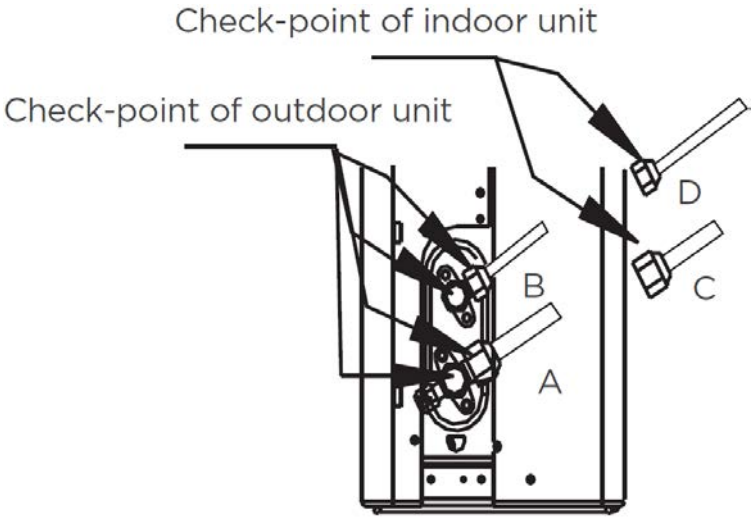
Gas Leak Checks

There are two different methods to check for gaseous leaks. Use the following figure to check for leaks.

Soap & Water Method - Using a soft brush or spray bottle, apply a soapy water solution to all of the pipe connection points of the indoor and outdoor units, watching to see if any bubbles form. The presence of bubbles indicates there is a leak.

Leak Detector Method - If using a leak detector, refer to the device's operation/instruction manual for proper usage instructions.

After performing Gas Leak Checks:
After confirming that all of the refrigerant pipe connection points do not leak, replace the valve cover on the outside unit and wrap and insulate the piping connections of the indoor unit.



A: Low pressure stop valve
B: High pressure stop valve
C & D: Indoor unit flare nuts

8.2 Test Run

! CAUTION

Failure to perform the test run may result in unit damage, property damage, or personal injury.

Before Test Run

A test run must be performed after the entire system has been completely installed. Confirm the following points before performing the test:

- Indoor and outdoor units are properly installed.
- Piping and wiring are properly connected.
- No obstacles near the inlet and outlet of the unit that might cause poor performance of product malfunction.
- Refrigeration system does not leak.
- Drainage system is unimpeded and draining to a safe location.
- Heating insulation is properly installed.
- Grounding wires are properly connected.
- Length of the piping and additional refrigerant capacity have been recorded.
- Power voltage is the correct voltage for the air conditioner.

Test Run Instructions

1. Open both the liquid and gas stop valves.
2. Turn on the main power switch and allow the unit to warm up.
3. Set the air conditioner to cool mode.
4. For the indoor unit:
   a. Double-check to see if the room temperature is being registered correctly.
   b. Ensure the manual buttons on the indoor unit work properly.
   c. Check to see that the drainage system is unimpeded and draining smoothly.
   d. Ensure there is no vibration or abnormal noise during operation.
5. For the outdoor unit:
   a. Check to see if the refrigeration system is leaking.
   b. Make sure there is no vibration or abnormal noise during operation.
   c. Ensure the wind, noise, and water generated by the unit do not disturb your neighbors or pose a safety hazard.

NOTE:
If the unit malfunctions or does not operate according to your expectations, please refer to the Troubleshooting section of the manual before calling customer service.

Water Discharge Test

- Before the test, make sure that the water discharge pipeline is smooth, and check that each connection is sealed properly.
- Conduct the water discharge test in the new room before the ceiling is paved.

1. Connect the power supply, and set the air conditioner to operate in the cool mode. Check the running sound of the drainage pump.
2. Keep cool mode running at least 10 minutes.
3. Stop the unit. Wait for three minutes, then check for anything unusual. If the water discharge piping layout is not correct, the excessive water flow will cause the water level error and "EE" error code will be displayed on the display panel. There may even be water overflowing from the water pan.
4. Continue to add water until the alarm for excessive water levels is triggered. Check if the drainage pump drains water immediately. After three minutes, if the water level does not fall below the warning level, the unit will shut down. At this time, you need to turn off the power supply, and drain away the accumulated water before you can turn on the unit normally.
5. Turn off the power supply, remove the water manually using the drainage plug, and put the test cap back to the original place.

! CAUTION

The drainage plug at the bottom of the unit body is used to discharge accumulated water from the drain pan when the unit malfunctions. When the unit is operating normally, make sure the drainage plug is properly plugged to prevent water from leaking

8.3 Packing & Unpacking the Unit

NOTE: Please keep all packaging items you may need in the future.

Unpacking:

Indoor Unit:

1. Cut the sealing tape on the carton with a knife, one cut on the left, one cut in the middle, and one cut on the right.
2. Use the vice to take out the sealing nails on the top of the carton.
3. Open the carton.
4. Take out the middle support plate if it is included.
5. Take out the accessory package, and take out the connecting wire if it is included.
6. Lift the machine out of the carton and lay it flat.
7. Remove the left and right package foam or the upper and lower packaging foam, untie the packaging bag.

Outdoor Unit:

1. Cut the packing belt.
2. Take the unit out of the carton.
3. Remove the foam from the unit.
4. Remove the packaging bag from the unit.

Packing:

Indoor Unit:

1. Put the indoor unit into the packing bag.
2. Attach the left and right package foam or the upper and lower packaging foam to the unit.
3. Put the unit into the carton, then put the accessory package in.
4. Close the carton and seal it with the tape.
5. Using the packing belt if necessary.

Outdoor Unit:

1. Put the outdoor unit into the packing bag.
2. Put the bottom foam into the box.
3. Put the unit into the carton, then put the upper packaging foam on the unit.
4. Close the carton and seal it with tape.
5. Use the packing belt, if necessary.

8.4 Care & Maintenance

! BEFORE CLEANING & MAINTENANCE

- Remember to disconnect the power before cleaning or maintenance, except for cleaning the air filter. Turning the circuit breaker of the indoor unit to "OFF" is not a reliable form of power disconnection.
- Contact an authorized service technician for repair or maintenance. Improper repair and maintenance may cause water leakage, electrical shock, or fire, and may void your warranty.
- Do not substitute a blown fuse with a higher or lower amperage rating fuse, as this may cause circuit damage or an electrical fire.
- Make sure the drain hose is set up according to the instructions. Failure to do so could cause leakage and result in personal property damage, fire, and electric shock.
- Make sure that all wires are connected properly. Failure to connect wires according to instructions can result in electrical shock or fire.
- Only use a soft, dry cloth to wipe the unit clean. If the unit is especially dirty, you can use a cloth soaked in warm water to wipe it clean.
- Do not use chemicals or chemically treated cloths to clean the unit.
- Do not use benzene, paint thinner, polishing powder, or other solvents to clean the unit. They can cause the plastic surface to crack or deform.
- Do not use water hotter than 104°F (40°C) to clean the front panel. This can cause the panel to deform or become discolored.
- Do not wash the unit under running water. Doing so creates an electrical hazard. Clean the lint using a damp, lint-free cloth and neutral detergent. Dry the unit with a dry, lint-free cloth.

⚠ WARNING

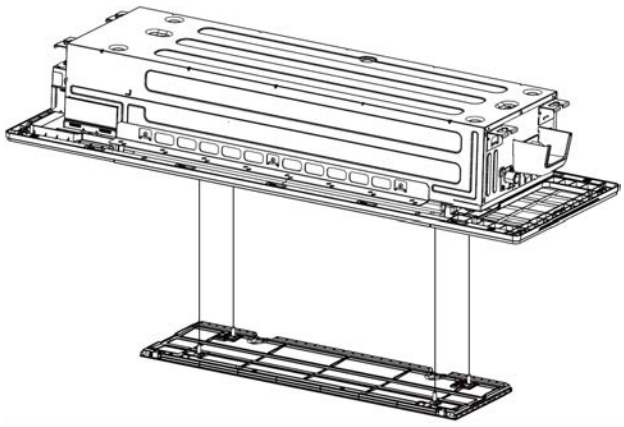
Removing and cleaning the filter can be dangerous. Removal and maintenance must be performed by a certified technician.

Clean Your Indoor Unit (Air Filter)

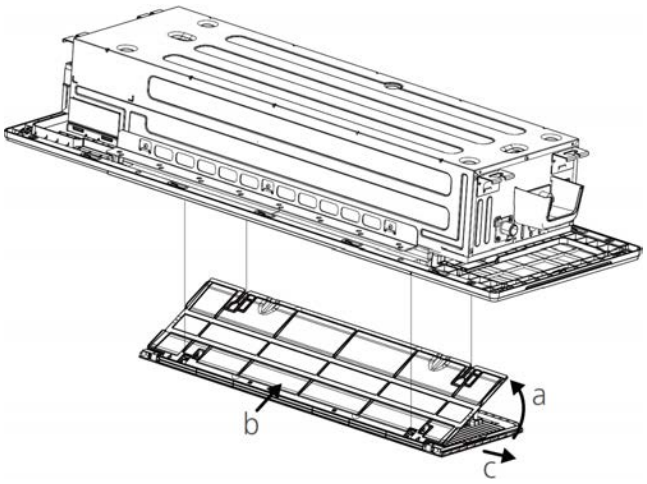
The filter prevents dust and other particles from entering the indoor unit. Dust buildup can reduce the efficiency of the unit. For optimum efficiency, clean the air filter every two weeks or more frequently if you live in a dusty area. Replace the filter with a new one if it is heavily clogged and cannot be cleaned.

NOTE: In households with animals, you will have to periodically wipe down the grille to prevent animal hair from blocking the airflow.

1. In the stand-by mode, press the "mode" and "down" buttons on the remote control at the same time for 3 seconds. The remote control enters the panel-setting state, the remote control displays "F2".
2. Press the "down" button on the remote control. The air grille automatically goes down. When it stops, pick up the air filter.



3. Hold the upper edge of the filter with both hands. Gently turn and lift until the upper edge is free from the wire rope.
4. Lift the filter and move it forward slightly until the filter is separated from the 4 wire ropes.
5. Move the filter to the right until it is separated from the air grille, and then the filter can be taken out.
6. Move the filter to the right until it is separated from the air grille, and then the filter can be taken out.



! CAUTION

- Do not dry out the air filter under direct sunshine or with fire.
- The air filter should be installed before the unit body installation.

7. Re-install the air filter.
8. Press the "up" button on the remote control to reset the air grille.

! CAUTION

- Before changing the filter or cleaning, turn off the unit.
- When removing the filter, do not touch metal parts in the unit. The sharp metal edges can hurt you.
- Do not use water to clean the inside of the indoor unit. This can destroy insulation and cause electrical shock.
- Do not expose filter to direct sunlight when drying. This can shrink the filter.
- Any maintenance and cleaning of the outdoor unit should be performed by an authorized dealer or a licensed service provider.
- Any unit repairs should be performed by an authorized dealer or a licensed service provider.
- When the air grille is rising, do not hinder the grille from rising with your hands or other objects.
- Do not pull the wire rope. If necessary, contact customer service.

Maintaining the Unit

Long Periods of Non-Use
If you plan not to use the unit for an extended period of time, do the following:

Clean all filters.

Turn on fan function until unit dries out completely.

Turn off the unit & disconnect the power.

Remove batteries from remote control.

Pre-Season Inspection
After long periods of non-use, or before periods of frequent use, do the following:

Check for damaged wires.

Clean all filters.

Check for leaks.

Replace batteries.

Ensure nothing is blocking the air inlets & outlets.

8.5 Troubleshooting

! CAUTION

If any of the following conditions occur, turn off the unit immediately.

- The power cord is damaged or abnormally warm.
- You smell a burning odor.
- The unit emits loud or abnormal sounds.
- A power fuse blows or the circuit breaker frequently trips.
- Water or other objects fall into or out of the unit.

DO NOT ATTEMPT TO FIX THESE YOURSELF! CONTACT AN AUTHORIZED SERVICE PROVIDER IMMEDIATELY.

The following problems are not a malfunction, and in most situations will not require repairs.

Issue	Possible Causes
Unit does not turn on when pressing ON/OFF button.	The unit has a 3-minute protection feature that prevents the unit from overloading. The unit cannot be restarted within 3 minutes of being turned off.
	If the operation light and PRE-DEF indicators are lit up, the outdoor temperature is too cold and the unit's anti-cold wind is activated in order to defrost the unit.
The unit changes from COOL/ HEAT mode to FAN mode.	The unit may change its setting to prevent frost from forming on the unit. Once the temperature increases, the unit will start operating in the previously selected mode again.
	The set temperature has been reached, at which point the unit turns off the compressor. The unit will continue operating when the temperature fluctuates again.
The indoor unit emits white mist.	In humid regions, a large temperature difference between the room's air and the conditioned air can cause white mist.
Both the indoor and outdoor units emit white mist.	When the unit restarts in heat mode after defrosting, white mist may be emitted due to moisture generated from the defrosting process.
The indoor unit makes noises.	A squeaking sound is heard when the system is off or in cool mode. The noise is also heard when the drain pump (optional) is in operation.
	A squeaking sound may occur after running the unit in heat mode due to expansion and contraction of the unit's plastic parts.
Both the indoor unit and the outdoor unit make noises.	Low hissing sound during operation: this is normal and is caused by refrigerant gas flowing through both indoor and outdoor units.
	Low hissing sound when the system starts, has just stopped running, or is defrosting: This noise is normal and is caused by the refrigerant gas stopping or changing direction.
	Squeaking sound: Normal expansion and contraction of plastic and metal parts caused by temperature changes during operation can cause squeaking noises.
The outdoor unit makes noises.	The unit will make different sounds based on its current operating mode.
Dust is emitted from either the indoor or outdoor unit.	The unit may accumulate dust during extended periods of non-use, which will be emitted when the unit is turned on. This can be mitigated by covering the unit during long periods of inactivity.
The unit emits a bad odor.	The unit may absorb odors from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operation.
	The unit's filters have become moldy and should be cleaned.
The fan of the outdoor unit does not operate.	During operation, the fan speed is controlled to optimize product operation.

Note: If a problem persists, contact a local dealer or MRCOOL® customer service. Provide them with a detailed description of the unit malfunction as well as your model number.

When trouble occurs, please check the following points before contacting a repair company.

Problem	Possible Causes	Solution
Poor Cooling Performance	**Temperature setting may be higher than ambient room temperature.**	Lower the temperature setting.
	The heat exchanger on the indoor or outdoor unit is dirty.	Clean the affected heat exchanger.
	The air filter is dirty.	Remove the filter and clean it according to instructions.
	The air inlet or outlet of either unit is blocked.	Turn the unit off, remove the obstruction and turn it back on.
	Doors and windows are open.	Make sure that all doors and windows are closed while operating the unit.
	Excessive heat is generated by sunlight.	Close windows and curtains during periods of high heat or bright sunshine.
	Too many sources of heat in the room (people, computers, electronics, etc.)	Reduce the amount of heat sources.
	Low refrigerant due to leak or long-term use.	Check for leaks, re-seal if necessary, and top off refrigerant.
	Silence function is activated (optional function)	Silence function can lower product performance by reducing operating frequency. Turn off Silence function.
The unit is not working	**Power failure**	Wait for the power to be restored.
	The power is turned off.	Turn on the power.
	The fuse is burned out.	Replace the fuse.
	Remote control batteries are dead.	Replace batteries
	The unit's 3-minute protection has been activated.	Wait three minutes after restarting the unit.
	Timer is activated.	Turn timer off.
The unit starts and stops frequently.	**There's too much or too little refrigerant in the system.**	Call a technician to check for leaks and recharge the system with refrigerant.
	Incompressible gas or moisture has entered the system.	Call a technician to evacuate and recharge the system with refrigerant.
	System circuit is blocked.	Determine which circuit is blocked and replace the malfunctioning piece of equipment.
	The compressor is broken.	Call a technician to replace the compressor.
	The voltage is too high or too low.	Install a manostat to regulate the voltage.
Poor heating performance	**The outdoor temperature is extremely low.**	Use auxiliary heating device.
	Cold air is entering through doors and windows.	Make sure that all doors and windows are closed during use.
	Low refrigerant due to leak or long-term use.	Call technician to check for leaks, re-seal if necessary, and top off refrigerant.
Indicator lamps continue flashing	The unit may stop operation or continue to run safely. If the indicator lamps continue to flash or error codes appear, wait for about 10 minutes. The problem may resolve itself. If not, disconnect the power, then connect it again. Turn the unit on. If the problem persists, disconnect the power and contact MRCOOL®.	
Error code appears and begins with the following letters in the display area: *E(x), P(x), F(x), EH(xx), EL(xx), EC(xx), PH(xx), PL(xx), PC(xx)*		

Note: If your problem persists after performing the checks and diagnostics above, turn off your unit immediately and contact a local dealer or MRCOOL® customer service.

8.6 Error Display (Indoor Unit)

When the indoor unit encounters a recognized error, an error code will be displayed; the error codes are described in the tables below:

Display	Error Information	Solution
FC	Forced Cooling (Not an error code)	--
EC07	ODU fan speed out of control	TS22
EC51	ODU EEPROM parameter error	TS19
EC52	ODU coil temp. sensor (T3) error	TS24
EC53	ODU ambient temp. sensor (T4) error	TS24
EC54	COMP. discharge temp. sensor (TP) error	TS24
EC56	IDU coil outlet temp. sensor (T2B) error (Multi-zone)	TS24
EC61	Other IDU refrigerant sensor detects leakage (Multi-zone)	TS38
EH00	IDU EEPROM malfunction	TS19
EH03	IDU fan speed out of control	TS22
EH0A	IDU EEPROM parameter error	TS19
EH0E	Water-level alarm malfunction	TS26
EH12	Main unit or secondary unit malfunction	TS40
EH3A	External fan DC bus voltage is too low protection	TS36
EH3b	External fan DC bus voltage is too high fault	TS36
EH60	IDU room temp. sensor (T1) error	TS24
EH61	IDU evaporator coil temp. sensor (T2) error	TS24
EH6A	Communication error between the indoor unit and the external fan module	TS36
EHC1	Refrigerant sensor detects leakage	TS39
EHC2	Refrigerant sensor is out of range and leakage is detected	TS39
EHC3	Refrigerant sensor is out of range	TS38
EL01	IDU & ODU communication error	TS20
EL0C	System lacks refrigerant	TS25
EL11	Communication malfunction between main unit and secondary units	TS40
FH07	Communication malfunction between indoor unit and auto-lifting panel	TS37
FHCC	Refrigerant sensor error	TS38
PC00	ODU IPM module protection	TS27
PC01	ODU Voltage Protection	TS28
PC02	Compressor top (or IPM) temp. protection	TS33
PC03	Pressure protection (low or high pressure) (for some models)	TS30
PC04	Inverter compressor drive error	TS29
PC0L	Low ambient temperature protection (for some models)	TS34
----	IDUs Mode Conflict (Multi-Zone)	--

For other errors:
The display board may show a garbled code or a code undefined by the service manual. Ensure that this code is not a temperature reading.

Troubleshooting:
Test the unit using the remote control. If the unit does not respond to the remote, the indoor PCB requires replacement. If the unit responds, the display board requires replacement.

LED Flash Frequency:

8.7 Remote Maintenance

Suggestion: When troubles occur, please check the following points with customers before field maintenance.

No.	Problem	Solution
1	Unit will not start	TS14-TS15
2	The power switch is on but fans will not start	TS14-TS15
3	The temperature on the display board cannot be set	TS14-TS15
4	Unit is on but the wind is not cold (hot)	TS14-TS15
5	Unit runs, but shortly stops	TS14-TS15
6	The unit starts up and stops frequently	TS14-TS15
7	Unit runs continuously but insufficient cooling (heating)	TS14-TS15
8	Cool cannot change to heat	TS14-TS15
9	Unit is noisy	TS14-TS15

8.8 Field Maintenance

No.	Problem	Solution
1	Unit will not start	TS16-TS17
2	Compressor will not start but fans run	TS16-TS17
3	Compressor and condenser (outdoor) fan will not start	TS16-TS17
4	Evaporator (indoor) fan will not start	TS16-TS17
5	Condenser (outdoor) fan will not start	TS16-TS17
6	Unit runs, but shortly stops	TS16-TS17
7	Compressor short-cycles due to overload	TS16-TS17
8	High discharge pressure	TS16-TS17
9	Low discharge pressure	TS16-TS17
10	High suction presure	TS16-TS17
11	Low suction pressure	TS16-TS17
12	Unit runs continuously but insufficient cooling	TS16-TS17
13	Too cool	TS16-TS17
14	Compressor is noisy	TS16-TS17
15	Horizontal louver cannot revolve	TS16-TS17

MRCOOL®

COMFORT MADE SIMPLE

DIY® Series Outtasight® One-Way Cassette