

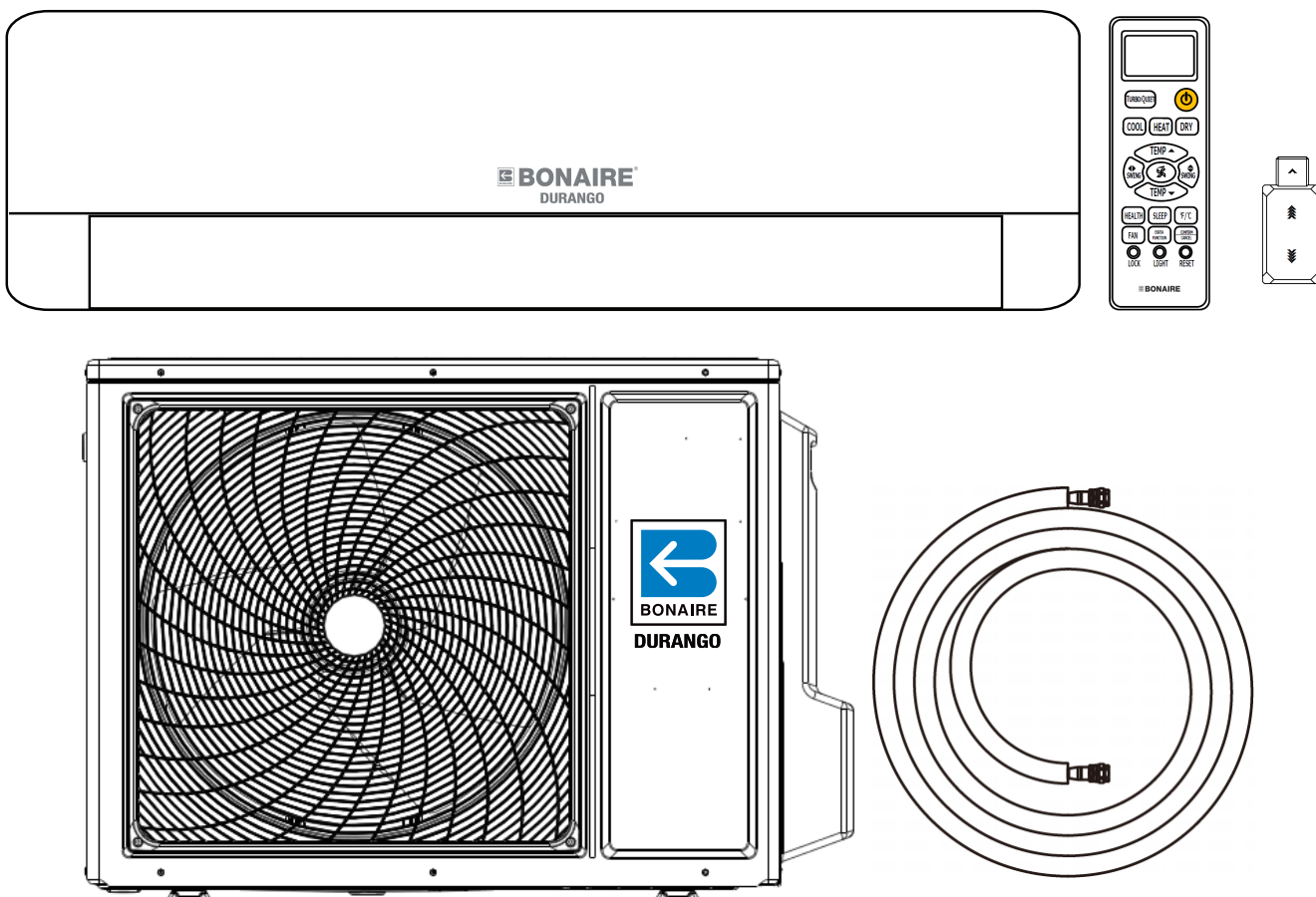


BONAIRE®

DURANGO

Installation Manual

Ductless Mini Split Air Conditioner



CRC7000012 Ductless Mini Split Air Conditioner 12K

CRC7000018 Ductless Mini Split Air Conditioner 18K

CRC7000024 Ductless Mini Split Air Conditioner 24K

Caution: For better user experience, please follow the recommended line-set installation method in this guide.

Design may vary by model number.

L'aspect peut varier selon le numéro de modèle.

El diseño puede variar según el número de model.

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IMPORTANT SAFETY INFORMATION

READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE

⚠ WARNING

For your safety, the information in this manual must be followed to minimize the risk of fire, electric shock, or personal injury.

- Use this equipment only for its intended purpose as described in this manual.
- This heat pump must be properly installed in accordance with these instructions before it is used.
- All wiring should be rated for the amperage value listed on the rating plate. Use only copper wiring.
- All electrical work must be completed by a qualified electrician and completed in accordance with local and national building codes.
- Any servicing must be performed by a qualified individual.

For any service which requires entry into the refrigerant sealed system, Federal regulations require that the work is performed by a technician having a Class II or Universal certification.

- All air conditioners contain refrigerants, which under federal law must be removed prior to product disposal. If you are getting rid of an old product with refrigerants, check with the company handling disposal.
- These R-410A heat pumps systems require that contractors and technicians use tools, equipment and safety standards approved for use with this refrigerant. DO NOT use equipment certified for R22 refrigerant only.

⚠ WARNING

RISK OF ELECTRIC SHOCK. Could cause injury or death.

- An adequate ground is essential before connecting the power supply.
- Disconnect all connected electric power supplies before servicing.
- Repair or replace immediately all electrical wiring that has become frayed or otherwise damaged. Do not use wiring that shows cracks or abrasion damage along its length or at either end.

⚠ WARNING

RISK OF FIRE. Could cause injury or death.

- Do not store or use combustible materials, gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

READ AND SAVE THESE INSTRUCTIONS

Installation Instructions

FOR MORE HELP, VISIT WWW.BONAIREDURANGO.COM OR CALL THE CONSUMER HELP LINE AT 877-337-3639.

BEFORE YOU BEGIN

Read these instructions completely and carefully.

. IMPORTANT — Save these instructions for local inspector's use.

. IMPORTANT — Observe all governing codes and ordinances.

- **Note to installer** — Be sure to leave these instructions with the Consumer.
- **Note to consumer** — Keep these instructions for future reference.
- **Skill level** — A licensed certified technician (to handle refrigerant R-410A, recovery, etc) and a qualified electrician are required for non-fast installation and service of this split heat pump system.
- Proper installation is the responsibility of the installer.
- Product failure due to improper installation is not covered under the limited warranty.
- For personal safety, this system must be properly grounded.
- Protective devices (fuses or circuit breakers) acceptable for installation are specified on the nameplate of each unit.
- Make sure to avoid wiring or plumbing inside the wall when installing.

⚠ CAUTION

- Aluminum building wiring may present special problems - consult a qualified electrician.
- When the unit is in the STOP position, there is still voltage to the electrical controls.

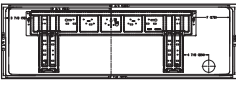
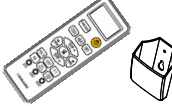
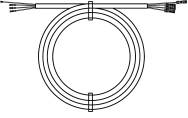
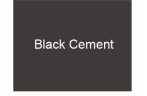
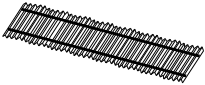
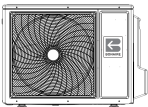
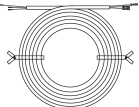
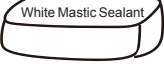
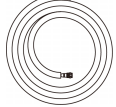
Required Tools for Installation

- 5/8" (16mm), 7/8" (22mm), 1" (25mm) or adjustable wrench
- R-410A refrigerant*
- Adhesive tape
- Conduit cable clamp 1/2"*
- Copper line set (for size, see table on page 15)
- #2 phillips screwdriver
- Drill
- R-410A flaring tool
- Hex wrench
- Hole saw 2 1/4"
- Insulation*
- Refrigerant scale
- Level
- Manifold gauge set
- Measuring tape
- Micron gauge
- Mini-split adapter (5/16"F to 1/4"M)
- Nitrogen*
- Pipe cutter
- PVC pipe (optional)
- Razor knife
- Reamer
- Saddle clamp (L.S.) w/ screws
- Sealant, non-expanding (for lineset hole)
- Soap/water solution* or gas leakage detector
- Stud finder
- Torque wrench
- Vacuum pump
- Wire strippers
- All usual and customary HVAC hand and power tools, meters, and testing devices

* consumable

Installation Instructions

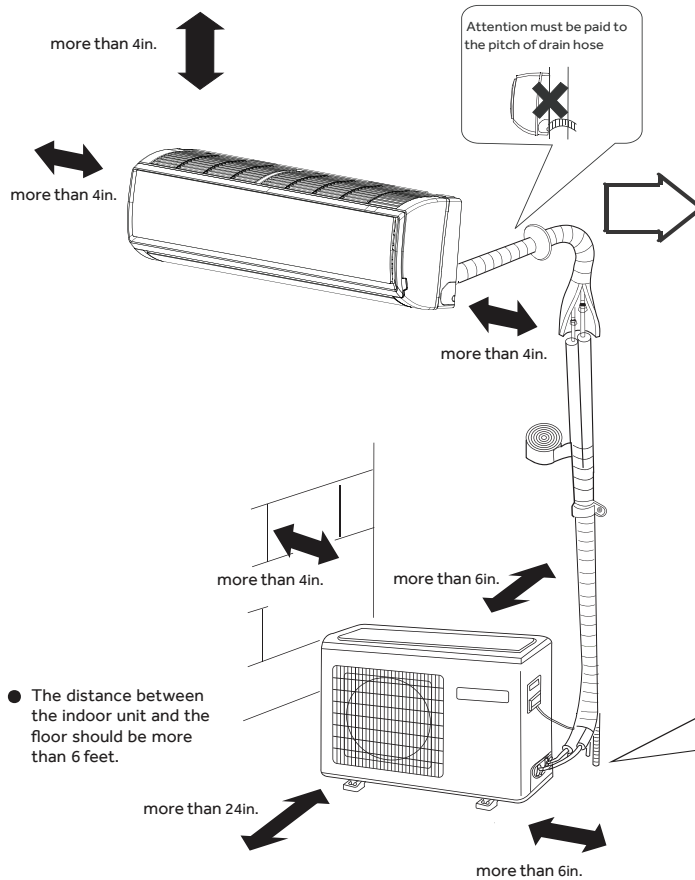
Box part Breakdown

Indoor Unit Box			
	Indoor Unit x1		Extra Foam Insulation x1
	Mounting Plate x1		Guard Ring x2
	Installation Template x1		Remote Controller + Wall Holder x1
	Battery AAA x2		Wifi Dongle x1
	Drain Pipe x1		Communication Cable x1
	Screw Suite x1		Black Cement x2
	Filter Core x1		Hexagon Wrench x1
Outdoor Unit box			
	Outdoor Unit x1		Power Cable Connection to Outdoor x1
	Vinyl Wrap x2		White Mastic Sealant x1
	Line Set x2		Drain Joint x1
	Condenser Anti-Vibration Pads x4		

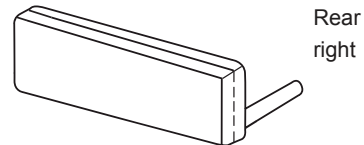
Installation Instructions

MINIMUM CLEARANCES (Appearance may vary)

This picture is for reference only. Your product may look different. Read your manual before installation.



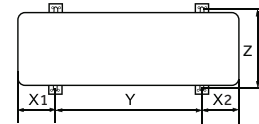
Piping Exit Advice



IMPORTANT NOTE:

The default position for all piping is the right side of the indoor unit (while facing the unit). For better user experience, please follow the recommended line-set installation method in this guide.

Floor fixing dimensions of the outdoor unit Refer to Submittal Document for unit dimensions.



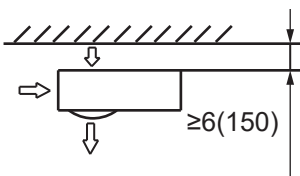
Fixing of outdoor unit

- Fix the unit to concrete or block with bolts 7/16"(10mm) securely.
- When fitting the unit to wall surface, roof or rooftop, fix the unit securely in consideration of earthquake and strong wind.
- If vibration may affect the house, fix the unit by attaching a vibration-proof mat.

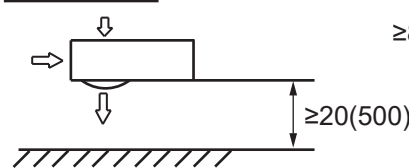
Selection of installation location of outdoor

Single-unit installation (unit: in.(mm))

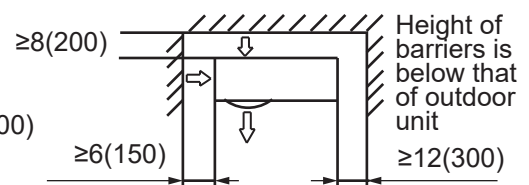
Back



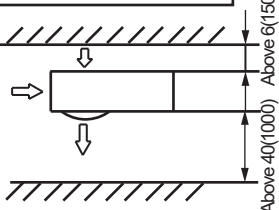
Front



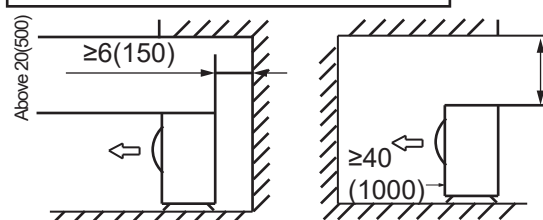
Back and side



Front and back



When barriers exist above the unit



The top and two side surfaces must be exposed to open space, and barriers on at least one side of the front back shall be lower than the outdoor unit.

Installation Instructions

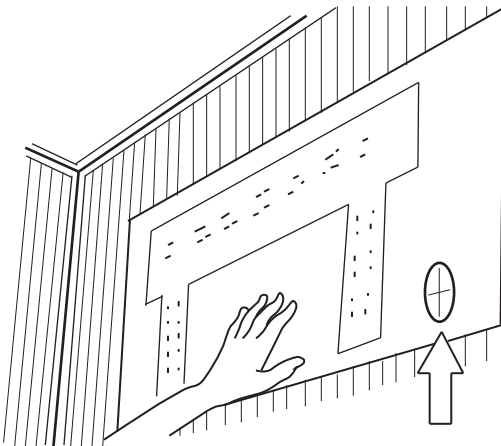
Step 1 - Installation of the Indoor Unit

A. Select the Indoor location:

- Do not allow any heat or steam near the unit.
- Select a location where there are no obstacles in front of the unit.
- Make sure that condensate drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the space around the left and right of the unit is more than 4". The unit should be installed as high on the wall as possible but allow a minimum of 4" from the ceiling.
- Use a stud finder to locate and mark stud locations for mounting and to prevent unnecessary damage to the wall.

Caution: Installation must be performed according to installation instructions. Improper installation may cause water leakage, electrical shock, fire, or may void the warranty.

- Install in a location that is strong enough to withstand the full weight and vibration of the unit.
- Leave enough space to allow access for routine maintenance.
- Select a location that gives easy access to removing and cleaning air filters.
- Install in a location that is 3 ft. or more away from other electrical appliances, such as televisions and audio devices.

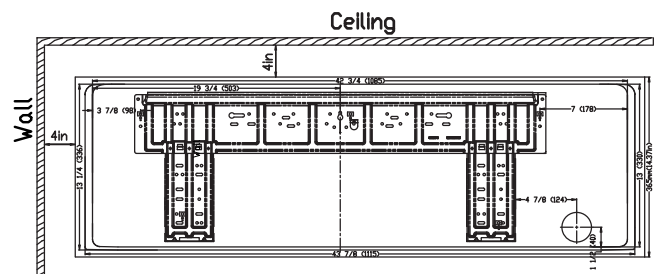


NOTE ABOUT WALL HOLE:

The default position for all piping is the right side of the indoor unit (while facing the unit).

B. Mark the wall using provided template:

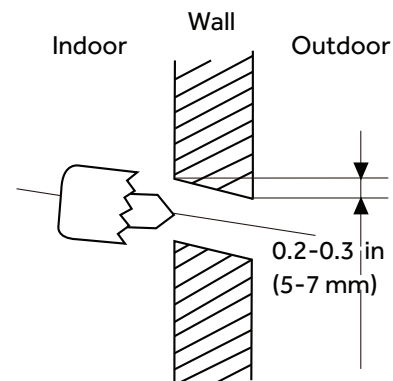
- Place the mounting plate template against the wall, in a location:
 1. On an exterior wall, at least 4 inches from the ceiling and 4 inches from adjacent wall.
 2. Where two studs can be drilled directly into to support the mounting bracket
 3. Where the line set hole, as marked on the template, will be free of electrical wiring, plumbing, and other sensitive components that may be hidden in the wall



- Use a level to make sure your template is level.
- Using something sharp like a nail, mark the areas of the wall where you will be drilling your screws and the line set hole.
- Remove the mounting plate from the wall.

C. Install the Mounting Plate:

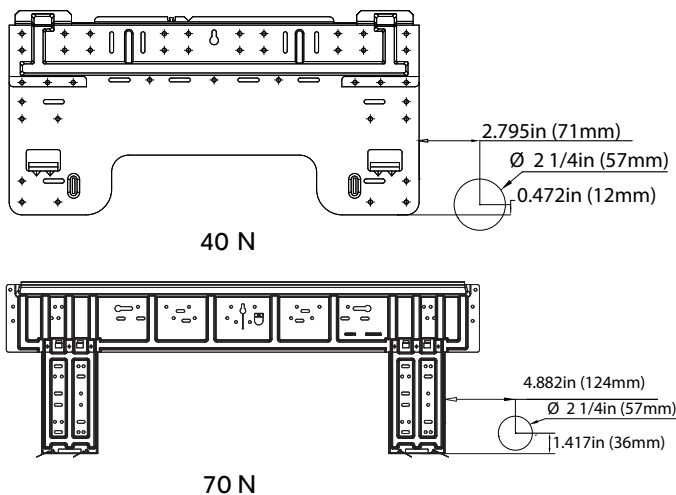
- Remove plastic bag, tape, and mounting plate from the back of the indoor unit.
- Line up the bracket with the screw and hole locations marked previously on your wall.
- Attach the mounting plate to the wall with the supplied screws.



Installation Instructions

Step 1 - Installation of the Indoor Unit (Cont.)

- If not able to align all screw holes with studs, wall anchors are supplied.
- Be sure that the mounting plate has been attached firmly and that applied weight is evenly distributed by each screw. (At least one screw in wall stud, others can use wall anchors.)
- The piping for the indoor unit need to be routed to and from the unit in one direction: right rear. See Illustration on page 6.
- Knockouts are provided on the unit case for Right usage.
- Determine the location of the wall hole based on the position of the mounting plate. Refer to Mounting Plate Dimensions on the next page to help you determine the optimal position. Refer to this figure wall hole diameter and install it at a slight angle to facilitate drainage.

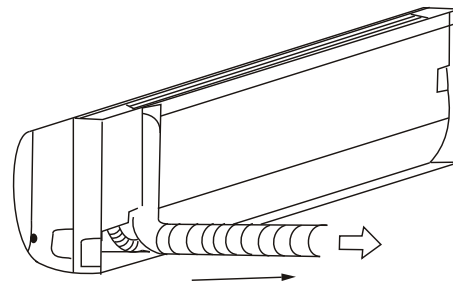


Capacity (BTU/h)	Bracket Style	Factory Reference Number
12K	40N	0011526360
18K/24K	70N	0011526361

D. Install the Tubing:

- Drill holes where the pipe holes were originally marked.
- If pipe location will be on the left side of the unit, follow these steps to move the drain pipe.
 1. Remove the stopper in the left drain hole and knockout the molded plug inside the port.
 2. Transfer the corrugate drain hose from the right side to the left side.
 3. Insert stopper into right side drain port. Using soap as a lubricant and a small screwdriver will allow for easier seating of the stopper.
- Drill the lineset hole using a 2 1/4" hole saw. Angle the drill with a downward pitch to the outside wall so that the outside wall hole will be at least a 1/4" lower than the inside hole. This allows for proper drainage of condensate.
- Install the lineset hole flange at the hole opening on the inside wall.

NOTE: The flange is prescored. It may be necessary to modify the flange to fit properly behind the wall unit housing.



bend the piping away from the back of the unit roughly 90 degrees.

- Based on the position of the wall hole, relative to the mounting plate, determine the necessary angle the piping will need to be bent to pass through the wall hole when the unit is mounted to the bracket.
- Grip the refrigerant piping at the base of the bend. Then, slowly, and with even pressure, bend the piping away from the back of the unit roughly 90 degrees. The piping should be sticking straight out from behind the unit once completed.

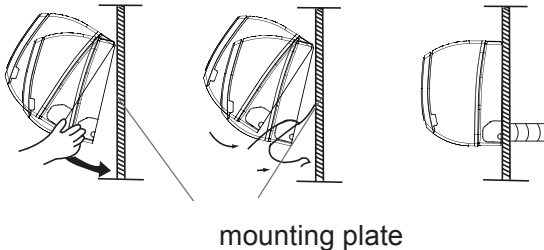
CAUTION: Be extremely careful not to dent or damage the piping while bending it away from the unit, as this could negatively affect the performance.

Installation Instructions

Step 1 - Installation of the Indoor Unit (Cont.)

E. Mount Indoor Unit to Mounting Plate:

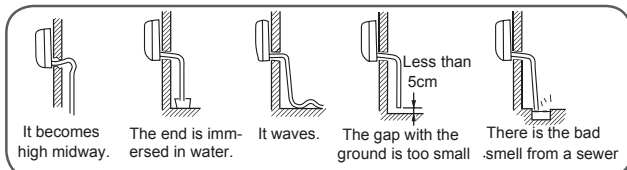
- Bundle the refrigerant piping, drain piping, and wiring with tape and carefully rout the bundle through the piping hole.
- With the top of the indoor unit closer to the wall, hang the indoor unit on the upper hooks of the mounting plate. Slide the unit slightly side to side to verify proper placement.
- Rotate the lower portion of the indoor unit to the mounting plate, and lower the unit onto the lower hooks of the mounting plate. (see illustration)
- Verify the unit is secured and flush to the wall.
- Indoor Unit installation is finished at this time.



F. Condensate Drainage Pipe:

- Verify the condensate drain line has a constant pitch downward for proper water flow. There should be no kinks or rises in the tubing which may cause a trapping effect of the water (see illustration).

Optional: Can use PVC pipe by connecting a 1" ID PVC pipe to the drain line coming out of the wall and running to desired location.

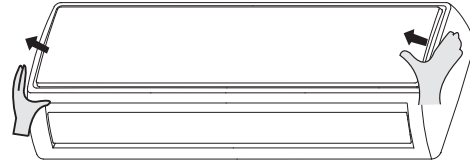


NOTE:

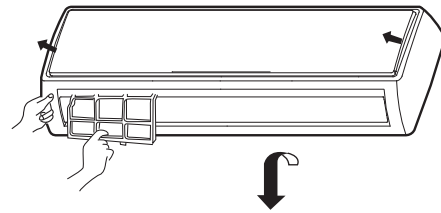
Refrigerant piping should exit the indoor unit from the right-hand side.

G. Install indoor unit filter:

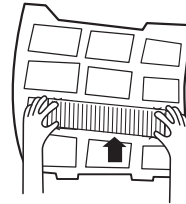
- Open the inlet grille. Prop up the inlet grille by using a small device named grille-support which is located in the right side of the indoor unit.



- Detach the standard air filter. Slide the knob slightly upward to release the filter, then remove it.



- Attach the air purifying filter. Place air purifying filter into the right and left filter frames.



- Reinstall the dust filter and close the panel.

H. To Remove the Indoor Unit:

- Slightly raise the entire unit.
- Pull the lower portion of the unit off the lower hooks and pull slightly away from the wall.
- Lift the upper portion of the unit off the upper hooks.

Installation Instructions

Step 2 - Installation of the Outdoor Unit

Select the Outdoor location:

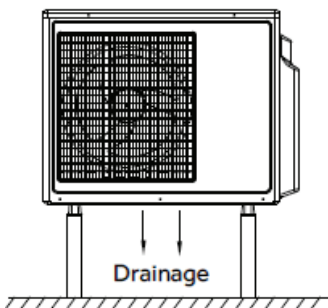
- Choose a level place solid enough to bear the weight and vibration of the OD unit and where the operation noise will not be amplified.
- Choose a location where the hot air discharge and/or noise will not create a nuisance for neighbors.
- Ensure there is sufficient space to maneuver the OD unit into place.
- Ensure there is sufficient space and no obstructions for the air inlet and outlet.
- Install the unit's power/communication wiring at least 10 feet away from television and radio sets to prevent interference.
- Ensure any moisture sensitive items are kept away from the condensate drain path of the OD unit.

NOTES:

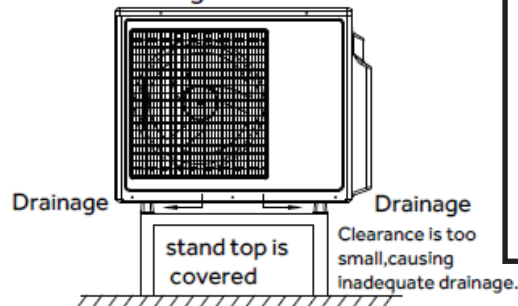
- OD unit cannot hang from a ceiling or be stacked.
- If installing the OD unit with a fence or rail guard around it, ensure that accumulated snow, debris, etc... will not block the air inlet or the coil.
- Ensure ventilation in case of refrigerant leakage. R-410A is a safe, nontoxic, and nonflammable refrigerant.
- Avoid installing the OD unit where corrosive gases, such as sulfur oxides, ammonia, and sulfurous gas are produced. If unavoidable, consult with an installation specialist about using a corrosion-proof or anti-rust additive to protect the unit coils.

Proper Installation for Drainage

Correct installation



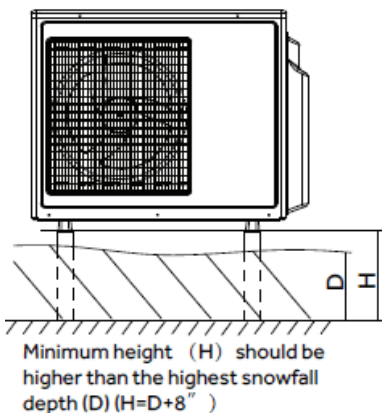
Wrong installation



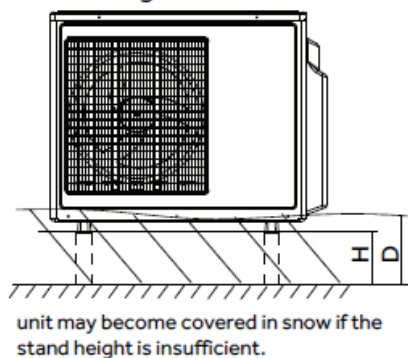
Set the unit on mount or pad. If located in snow area, use heat pump risers to elevate the outdoor unit.

If the unit is located in an area where freezing can occur, do not install the drain elbow.

Correct installation



Wrong installation



Installation Instructions

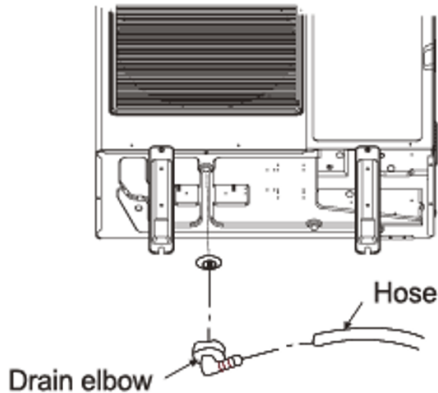
Step 2 - Installation of the Outdoor Unit(Cont.)

A. Prepare the Outdoor Unit for Installation

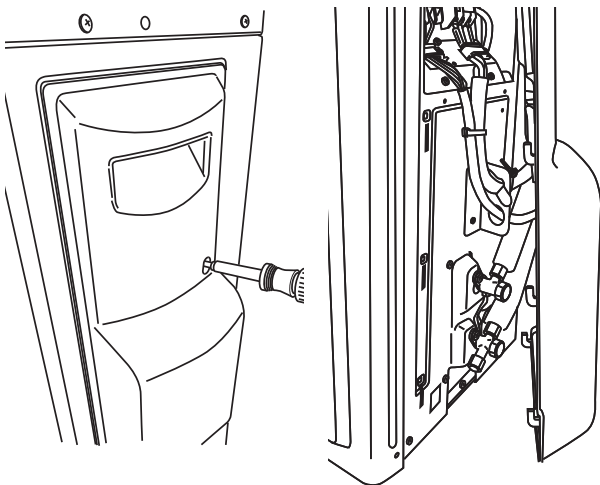
- Remove all packaging.
- Place supplied vibration pads onto outdoor unit's feet.
- If required, attach the supplied drain elbow to the outdoor unit. Connect extension piping as needed (not supplied). (see illustration)

NOTE: The drain elbow is designed with an air gap and will not sit flush to bottom of the outdoor unit.

NOTE: BonAire Durango models will not use a drain elbow. If condensate management is required by code, a 3rd party pan is needed.



- Remove the cover plate of the outdoor unit to expose the terminal block connections.



1. Remove Screw

2. Slide the panel down to release the clips and pull away.

B. Electrical Connections for the Outdoor Unit

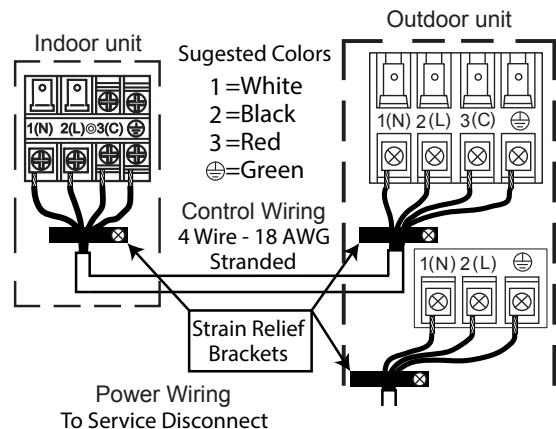
⚠ WARNING RISK OF ELECTRIC SHOCK.

Could cause injury or death.

Make sure power is off before touching wires.

NOTE: Be certain all wiring complies with local building codes and NEC and that the supply voltage for this system is correct.

- Connect the wiring for both the power source and the indoor wiring using a conduit cable bracket on the side of the outdoor unit. It is recommended that the power cord pass through the upper hole of the bracket and the connecting cable through the lower hole.
- Remove the transparent protective sleeve from the connection wire terminal.
- Verify that the wiring connections match the indoor connections wire for wire.
- Ensure each wire is under the screw terminal plate and the plate is tightened.
- Ensure the 18AWG control cable is secured under the strain relief bracket.
- Verify that all connections are secured.
- Please be sure to connect the wires in the sequence of white, black, red and green from left to right.



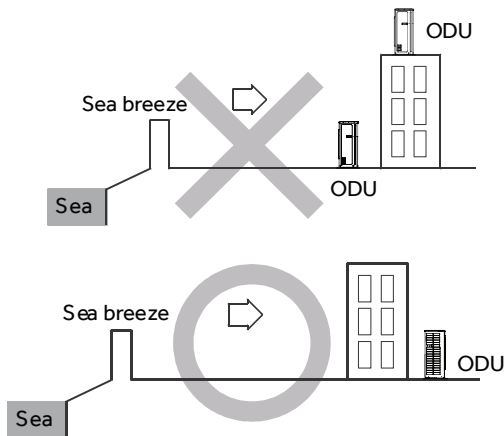
NOTE: Failure to follow the wiring guidelines can result in control board damage and communication issues (E7 error code). This includes improper wire size, use of solid core wire, midline splicing and poor terminal connections.

Installation Instructions

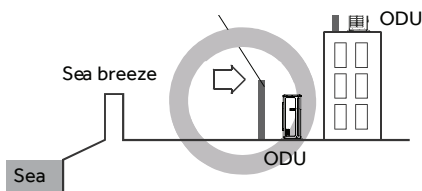
Step 2 - Installation of the Outdoor Unit(Cont.)

C. Install the outdoor unit

- The outdoor unit should be installed at least ½ mile away from the salt water, including seacoasts and inland waterways. If the unit installed from ½ mile to 5 miles away from the salt water, including seacoasts and inland waterways, please follow the installation instruction below.
- Install the outdoor unit in a place (such as near buildings etc.) where it can be protected from sea breeze which can damage the outdoor unit.



- If you cannot avoid installing the outdoor unit by the seashore, construct a protection wall around it to block the sea breeze.
- A protection wall should be constructed with a solid material to block the sea breeze. The height and the width of the wall should be 1.5 times larger than the size of the outdoor unit. Also, allow at least 28" (700mm) between the protection wall and the outdoor unit for air circulation to ventilate.
- Install the outdoor unit in a place where water can drain freely.
- If the above conditions cannot be met, contact Haier for assistance.



D. Secure the outdoor unit

Anchor the Outdoor Unit

The outdoor unit can be anchored multiple ways* — a pad on the ground, a wall bracket, or a stand/blocks (*not included).

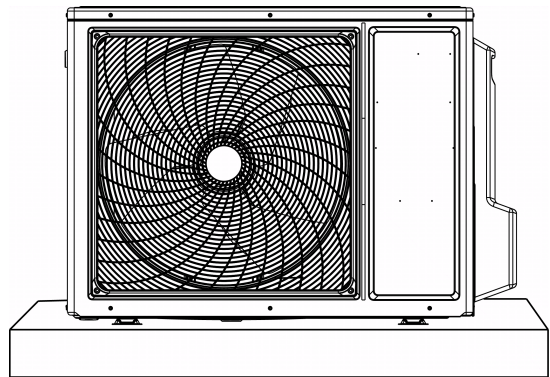
Installing the unit on a condenser pad:

- Mark the positions of the four feet.
- Pre-drill holes for expansion bolts, clean any dust away from holes.
- Place a nut on the end of each expansion bolt.
- Hammer expansion bolts into the pre-drilled holes.
- Remove the nuts from expansion bolts. Place outdoor unit on bolts.
- Put washer on each expansion bolt, then replace the nuts. Using a wrench, tighten the nuts until snug.

WARNING: WHEN DRILLING INTO CONCRETE, EYE PROTECTION IS HIGHLY RECOMMENDED.

Installing the unit on a wall-mounted bracket:

Please refer to the bracket manufacturer's directions for installation.



NOTE:

- Install the air conditioner at in an area that can be ar its weight for quieter operation.
- Install the outdoor unit in an area where the air discharged and the operation are not distracting for neighbors.
- Do not place any obstacles in front of the air outlet of the outdoor unit as it increases noise level.

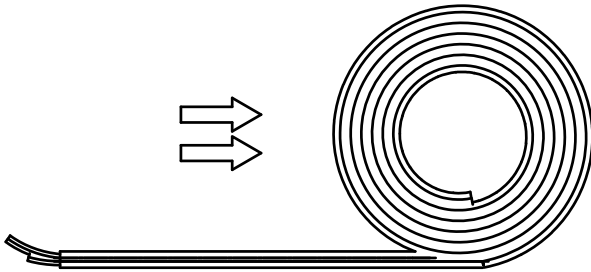
Installation Instructions

Step 2 - Installation of the Outdoor Unit (Cont.)

E. Connecting the refrigerant lineset to outdoor and indoor unit

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

CAUTION: Be extremely careful not to kink or damage the copper piping while unrolling the line set. Any kinks in the piping will affect the unit's performance.



Important Information - Read Before Proceeding.

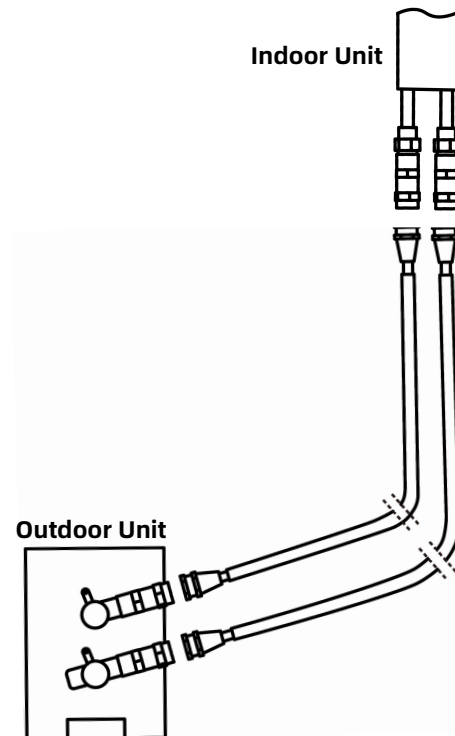
Follow the detailed instructions for connecting the refrigerant pipes to the indoor unit and outdoor unit. The warranty is only honored if the lines are installed correctly as described in the instructions.

- Do not remove the sealing caps until immediately before you install the lines.
- To prevent leaks, ensure that the male condenser couplers are completely free of dirt. Moisture or foreign bodies will adversely affect the function of the male condenser couplers, leading to a risk of refrigerant loss (not covered by the warranty).
- Only install refrigerant lines outdoors, in dry weather.
- The refrigerant lines must not be installed and then plastered over. Line hide can be used to help disguise the line set outdoors if wanted.
- Please make sure that refrigerant is never allowed to enter the environment. Improper handling of refrigerant may be harmful to your health and the environment. Always wear work gloves and goggles when handling refrigerant.
- Do not smoke during the installation work.
- The equipment must never be operated without the refrigerant lines connected, otherwise the equipment will be greatly damaged.
- The screw connections may only be tightened using the appropriate open-ended wrench. Remember that if they are tightened with too little torque they will leak, but if they are tightened with too much torque, the screw connections may suffer damage.

- If you are not confident about connecting the refrigerant line yourself, it is imperative that you contact our customer service team, refrigeration contractor or a certified HVAC technician.
- The male condenser couplers are only designed for one-time installation. Their seal can not be guaranteed if they are installed on more than one occasion. This will also void the warranty.

F. Fast connect method

- Before the product leaves the factory, the fast male couplers of indoor unit and outdoor unit have been installed, you only need to use a movable wrench to screw the female couplers at both ends of the connecting tube to the fast male connector (as shown in the figure below), the following are the detailed installation steps.

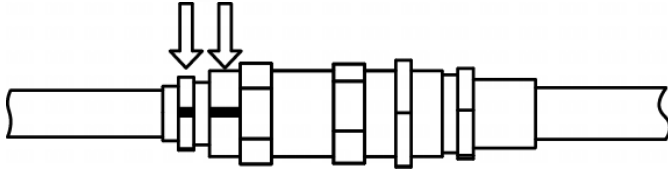


1. First, connect the line set to the indoor unit. Remove the caps according to color, 1 from the indoor unit, and 1 from the line set. Screw these together without cross threading them. Once they are tight, give another 1/4 turn to fully seat. Follow the same step to connect the other line.

Installation Instructions

Step 2 - Installation of the Outdoor Unit (Cont.)

ATTENTION: Once you have made the connections from the line set to the indoor head, ensure that the black lines on the fittings are aligned. If they are not you must re tighten them until they are aligned.



NOTE: The refrigerant lines must be connected to the valves on the outdoor unit and indoor unit with as little stress as possible, leave slack.

2. Connect the line set to the condenser. Tighten the bottom male condenser coupler first and then the top male condenser coupler using an open-ended wrench. (see figure 1)

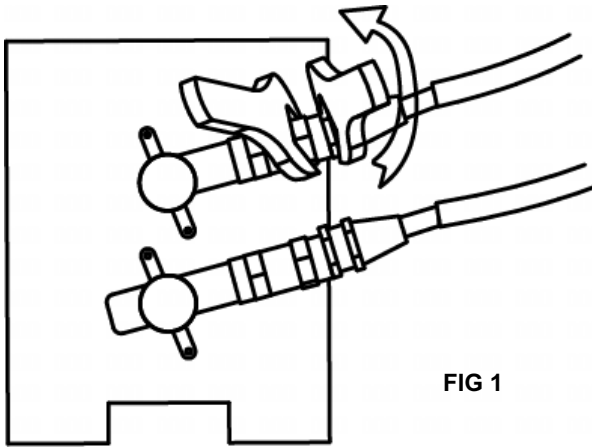


FIG 1

- Ensure the screw connectors do not skew as you tighten them. See below chart for proper torque.
- Because the coupling works with tapping rings, it may leak if you undo and reconnect the lines this will void the warranty.

Coupler Model	Specification	Coupler Tighten Torque (suggested)
FA06/FB06	6.35mm	16N.m/11.8Ft.lbs
FA09/FB09	9.52mm	16N.m/11.8Ft.lbs
FA12/FB12	12.7mm	18N.m/13.3Ft.lbs

3. Remove the cover on the top valve using an adjustable wrench. Using a 5mm Allen key, place key inside of the valve and turn counter clockwise slowly until you reach a stop (see figure 2). Then screw the cap back on the top of the valve and tighten to ensure a proper seal (see figure 3).

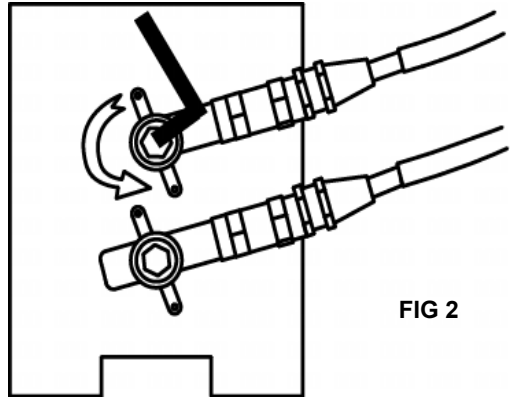


FIG 2

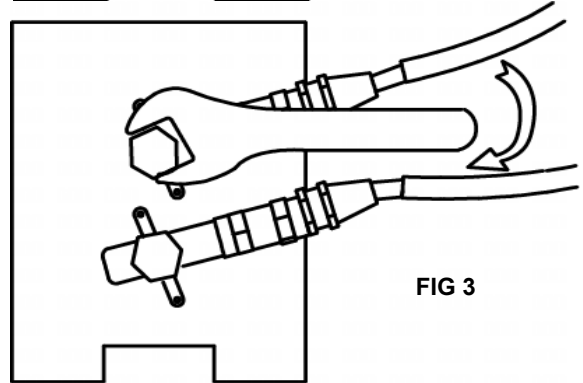


FIG 3

4. Remove the cover on the bottom valve using an adjustable wrench. Using a 5mm Allen key, place key inside of the valve and turn counter clockwise slowly until you reach a stop. Then, screw the cover back on the top of the valve and tighten to ensure a proper seal.

IMPORTANT: The conical ring on the valve has a sealing function with the sealing seat in the caps. Take precaution not to damage the cone, and keep it free of dirt and other debris.

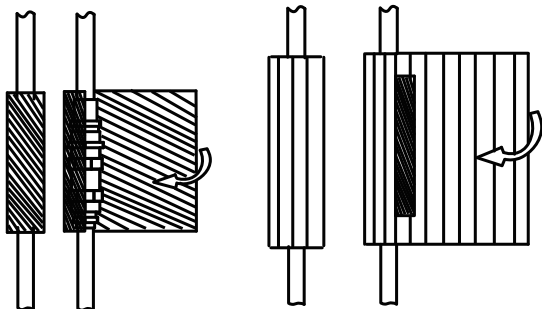
5. After steps 1-4, double check that all connections are properly sealed using leak detection spray or soap suds. If bubbles form, the system has a leak and the screw connectors must be tightened again using an open-ended wrench. (see page 17 for a description of the leak test)

Installation Instructions

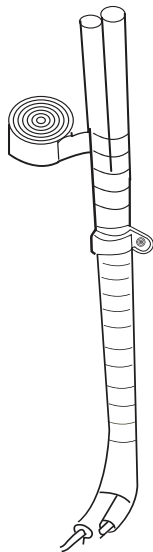
Step 2 - Installation of the Outdoor Unit (Cont.)

6. After confirming that there is no leakage in the system, use the black cement and white heat insulation pipe in the accessory to wrap the connection between the indoor unit line set connector.

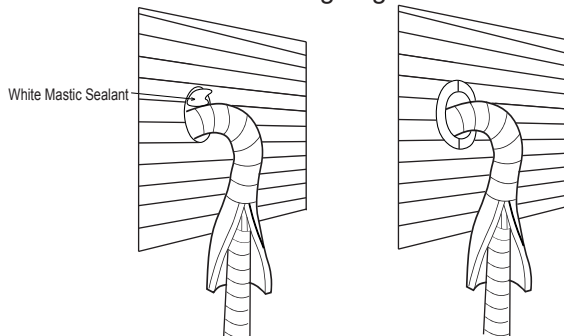
- Use the black cement wrap the connection part of the line set. Cut the foam insulation of suitable length, and wrap the exposed copper tube.



- ★ If the installation method you choose is inconsistent with this manual, please refer to the installation procedure on page 16.
- Finally, use a vinyl tape to wrap the tube and the connecting wire together.



- Use white mastic to seal the holes in the wall and install the retaining ring at last.



G. Flared connection method(Requires certified HVAC Technician)

1. Intall Copper Lineset

- The standard line set length is 25 feet. If the installation length is different, adjust the refrigerant charge by 0.2 oz/ft if the liquid line is 1/4", or 0.5 oz/ft if the liquid line is 3/8".
- Cut the line set to length.
- Place nut over the pipe and then flare with the R410A flaring tool.

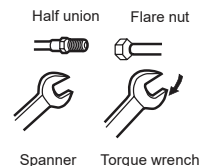
NOTE: Follow standard practices for creating pipe flares. When cutting and reaming the tubing, use caution to prevent dirt or debris from entering the tubing. Remember to place nut over the tubing before flaring.

- To join the line set, directly align the tubing flare to the fitting on the other pipe. Slide the nut onto the fitting and hand tighten.
- Torque the fittings according to the specifications shown in the torque chart below.

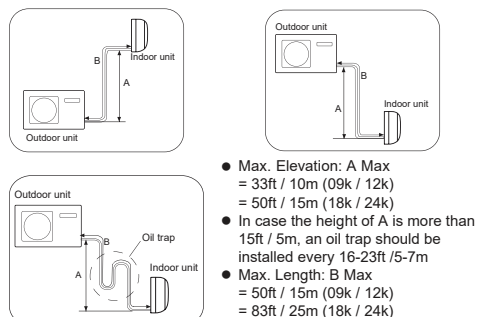
Forced fastening without careful centering may damage the threads and cause a refrigerant leak.

Pipe Diameter(ϕ)	Fastening torque
Liquid side 6.35mm(1/4")	18N.m/13.3Ft.lbs
Liquid/Gas side 9.52mm(3/8")	42 N.m/30.1Ft.lbs
Gas side 12.7mm(1/2")	55N.m/40.6Ft.lbs

- Two wrenches are required to join the flare connection; one standard wrench and one torque wrench adjusted to the proper settings.
- Repeat the process for attaching the other end of the line set.



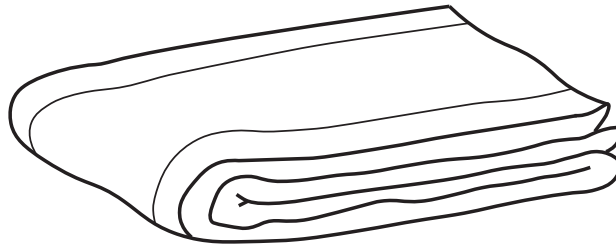
CAUTION



Installation Instructions

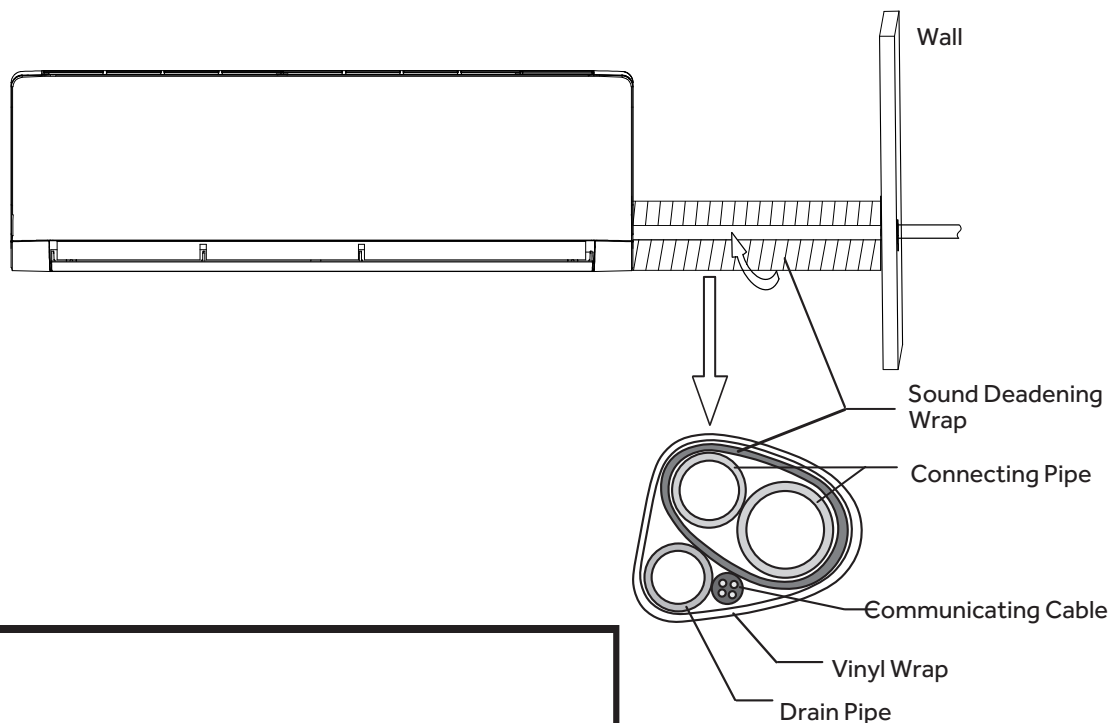
Step 2 - Installation of the Outdoor Unit (Cont.)

This accessory is Sound Deadening Wrap.
Please follow the installation instructions below.



IMPORTANT

If your pre-selected installation position is inconsistent with the default position in the installation operation manual, be sure to wrap the exposed lineset part of the room with this installation accessory for better user experience. This step should be applied after finishing Installation Manual Page 15 step No.6. Please see the diagram below.



NOTE:

- Please cut the length of this accessory according to the actual installation position of the indoor unit.
- This procedure should be applied after the first step of procedure No.6 on page 15.
- On the left is a cross-sectional view of the connecting pipe, the communicating cable and the drain pipe for reference.

Installation Instructions

Step 2 - Installation of the Outdoor Unit (Cont.)

2. Leak Test

- Remove the cap on the service valve.
- Using a tank of dry nitrogen and approved regulator, charge the system with 150 psig of dry nitrogen using mini split adapter to connect the valve.
- Check for leaks at the flare fittings using soap bubbles or another detection device. If a leak is detected, make repairs to the fittings and recheck. If no leaks are detected within 3 minutes, proceed.
- Using the same tank/regulator, charge the system to 300 psig.
- Check for leaks as earlier. If no leaks are detected within 3 minutes, proceed.
- Using the same tank/regulator, charge the system to 500 psig.
- Check for leaks as earlier. Keep system pressurized for at least 20 minutes.

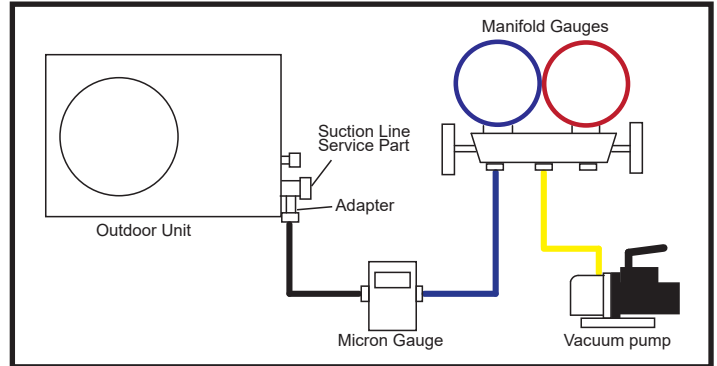
⚠ WARNING

Do not use acetylene, oxygen or compressed air or mixtures containing them for pressure testing. Do not use mixtures of hydrogen containing refrigerant and air above atmospheric pressure for pressure testing, as they may become flammable and could result in an explosion. Refrigerant, when used as a trace gas, should only be mixed with dry nitrogen for pressurizing units. Failure to follow these recommendations could result in death or serious injury as well as equipment or property damage.

3. System Evacuation

NOTE Do not open service valve.

- Attach a manifold gauge, micron gauge, and vacuum pump to the suction line port using adapter AD-87 (see illustration).
- Evacuate the system to at least 350 microns.
- Close the vacuum pump valve and check the micron gauge. If the gauge rises 150 microns in 60 seconds, the evacuation is incomplete or there is a leak in the system. If the gauge does not rise 150 microns in 60 seconds, the evacuation is complete.
- Once evacuation is complete, remove the adapter and hose connection from the suction line port and replaced the cap.



4. Refrigerant Charging

- Add any additional refrigerant after evacuation using a digital scale.
NOTE: Charge liquid only.
- Fill out the refrigerant charge label using indelible ink.
- Place the factory refrigerant charge found in table on page 15 in the box number 1.
- Place the amount of additional refrigerant added in box number 2.
- Add boxes 1 and 2 together and place the value in the sum box (D).
- Adhere the filled out label in the proximity of the product charging port and under the outside units valve cover.
- If the label is missing, write amounts on outdoor unit with permanent marker above the charging port.
- Remove the cap from the liquid line valve. Using a hex wrench, open the valve, then replace and tighten the cap securely to avoid leaks.
- Remove the cap from the suction line valve. Using a hex wrench, open the valve, then replace and tighten the cap securely to avoid leaks.
- Wrap the line set, drain line, and 18/4 AWG wiring starting at the bottom of the bundle with an overlap type wrap until you reach the piping hole.
- Use a sealant to seal the piping on both sides of the wall in order to prevent drafts, weather, or pests from entering the building.

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent into the atmosphere.

Installation Instructions

Step 2 - Installation of the Outdoor Unit (Cont.)

Contains fluorinated greenhouse gases covered by the Kyoto Protocol

R410A

1 = oz

2 = oz

1+2 = oz

Refrigerant type: R-410A
GWP* value: 2088
GWP = global warming potential

5. Check Items for Test Run

- ☐ No gas leak from linesets?
- ☐ Are the linesets insulated properly?
- ☐ Are the connecting wirings of indoor and outdoor firmly inserted to the terminal block?
- ☐ Is the connecting wiring of indoor and outdoor fixed?
- ☐ Is condensate draining correctly?
- ☐ Is the ground wire securely connected? Is the indoor unit securely fixed?
- ☐ Is power source voltage correct according to local code?
- ☐ Is there any odd noise?
- ☐ Does the cooling temperature drop between 20-30°F?
- ☐ Does the heating temperature raise between 35-40°F?
- ☐ Is the room temperature display accurate?

Step 3 - Test the Air Conditioner

A. Connect the drain tube

Connect the drain tube that comes with the condenser, use duct tape to secure the tubes together.

B. Go inside and turn on the wall unit

1. When the outside work has been concluded, be sure to re-check all wiring and valves.
2. Go inside and turn on the indoor unit using the provided remote control.
3. Set the temperature to the lowest temperature in cool mode.
4. Wait for unit to run and assure unit blows cool air and all functions and mode are in working conditions

C. Check for leaks

Once the unit is up and running it is important to check for refrigerant leaks, while the system is running double check for leaks.

There are two methods to check for gas leaks:

1. Soap and Water Method: Fill a spray bottle with dish soap and water. Spray all line-set connection fittings to make sure there is no bubbling, bubbling implies there is a leak.
2. Leak Detector Method: When using a leak detector, please refer to the device's user manual for proper instructions.

Once confirmed that no leaks are present, replace the valve cover on the outside condenser.

IMPORTANT

If you have a problem with this product,

Visit our website at www.bonairedurango.com

**For Technical Advice/Warranties call 800-939-2983 or
mail us at info@bonairedurango.com**

Monday to Friday 8:00 A.M. – 1:00 P.M. Pacific Time

DATED PROOF OF PURCHASE REQUIRED FOR WARRANTY SERVICE