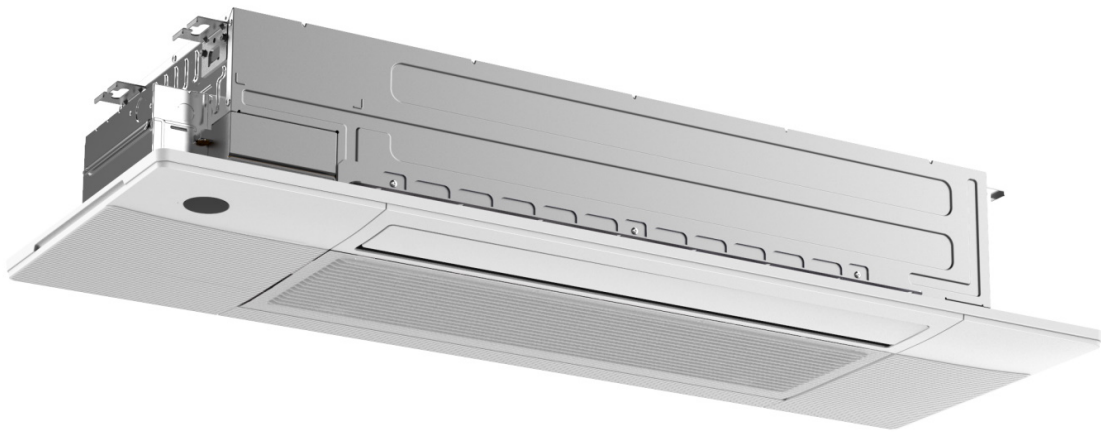




S4 SLIM CASSETTE QUICK INSTALL GUIDE

S4 Slim Cassette Mini-Split for Heating & Cooling



MODELS

BMX6HH22CC2

BMX9HH23CC2

BMX12HH22CC2

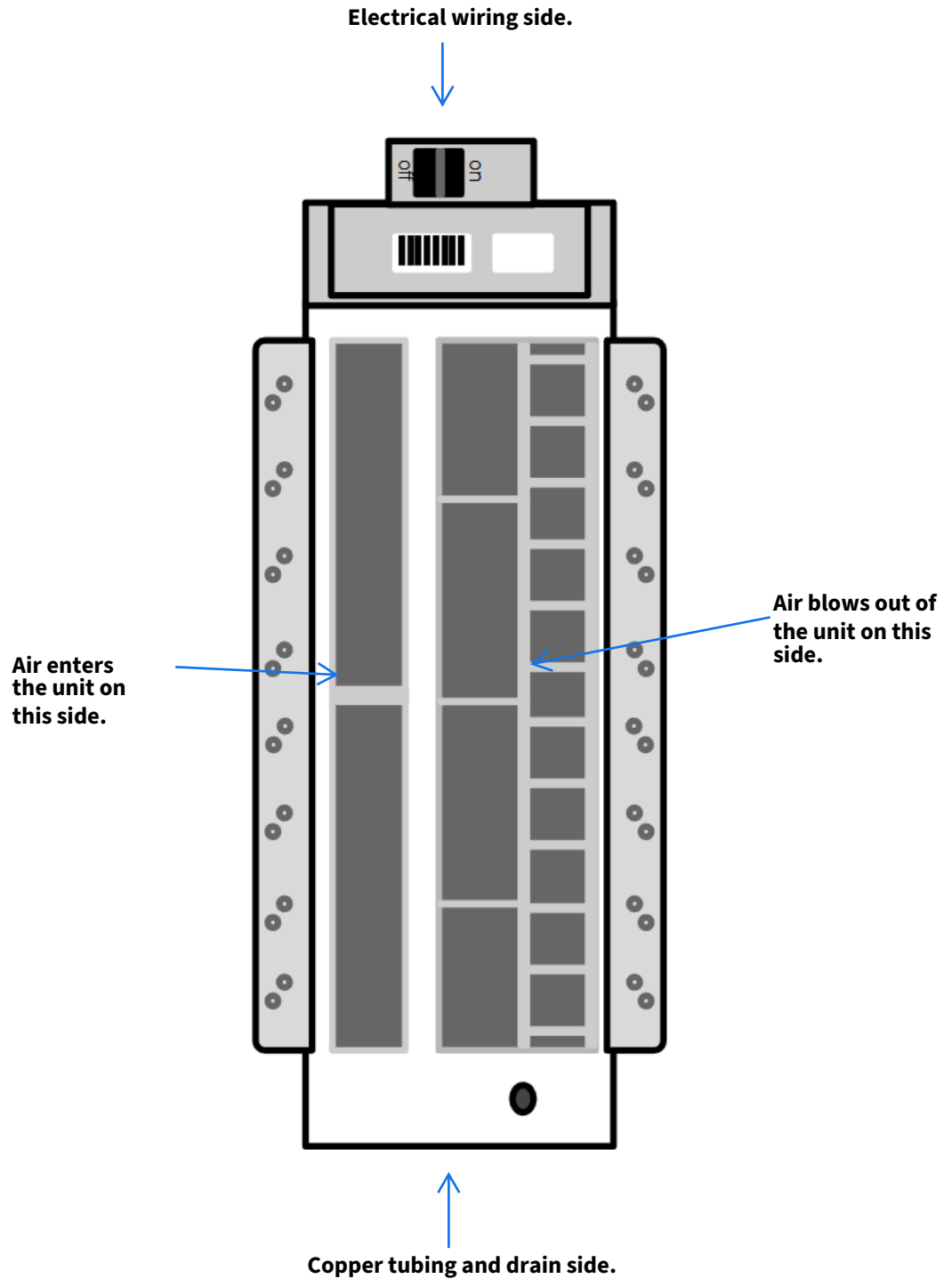
BMX18HH20CC2



Correct positioning on the indoor unit is critical for a smooth installation.

- Slim cassettes are over 4 feet long and must be installed parallel with the joists they are recessed into.
- Be aware of where the copper tubes connect to the indoor unit.
- Be aware of where the electrical wire connects on the indoor unit.
- Understand where the air blows out of the unit (recommended minimum clearance of 10 feet to a wall).
- Understand where the air is pulled back into the unit. (recommended minimum clearance of 7.87 inches to a wall)
- Then select the installation location.

Picture of a slim cassette without the grille to the right.

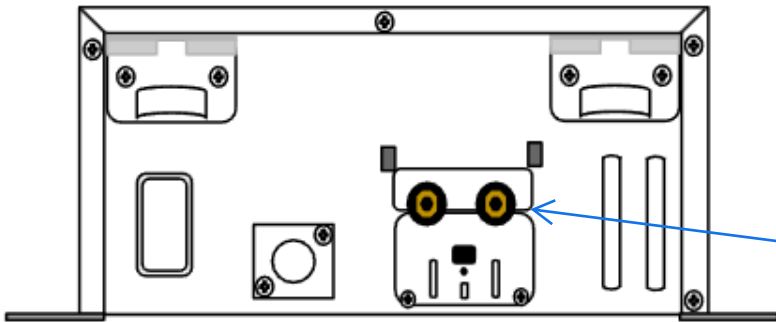


PREP FOR INSTALL

2

Your indoor air handler has been pre-pressurized with nitrogen.

Short end of the indoor unit.



Copper tubes

- Locate the copper tubes on the side of the indoor unit.
- Loosen the cap on either of the 2 copper tubes.
- You should hear a hissing noise, which is the release of this harmless gas.
- Allow all of the nitrogen to escape the line.
- Put the the cap back on securely, and repeat this process for the other connection.

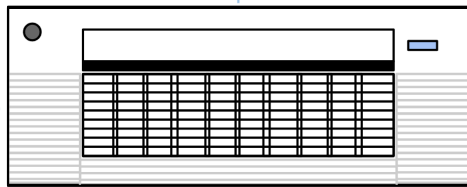
If you don't hear a hissing noise when loosening the cap, please call us at 800.865.5931.

3

These units are designed to be recessed into joists that are 16 or 24 inches on center (14.5 or 22.5 inches apart). Clearances below.

10 feet or more on the side that air blows out of.

19.69 inches or more.



19.69 inches or more.

7.87 inches or more on the side where the air is pulled into the unit.

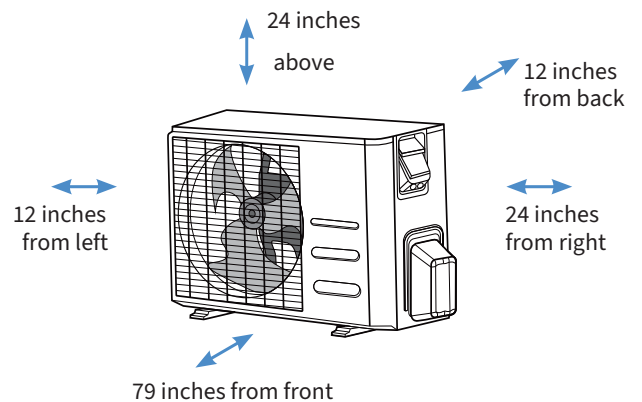


Recommended installation height is 8-10 feet above the floor.

You must install this flat. They aren't suitable for pitched ceilings. You must have accessible space above to install these units.

4

Choose the location to place the outdoor unit.



If used for heating, it is recommended to raise the outdoor unit to allow for proper drainage and keep it clear of expected snowfall (if applicable).



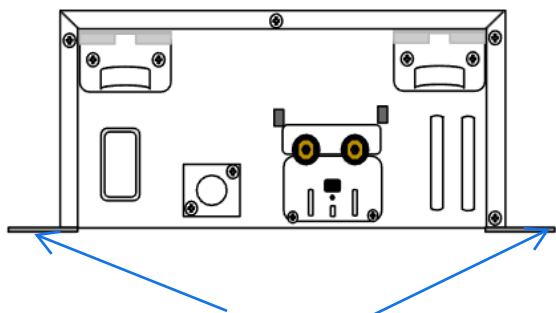
Maintain listed clearances

INDOOR UNIT

5

Choose your installation method.

The indoor unit comes with a mounting bracket attached to each long side.

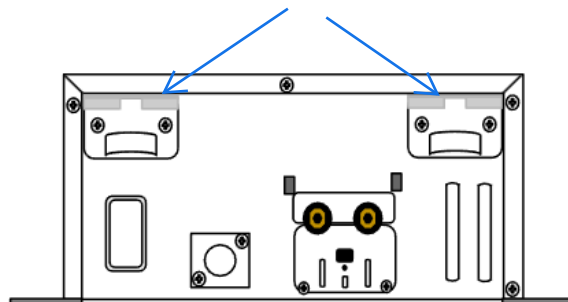


Use if your joists are 16 inches on center. Or if you frame in with joists that are 24 inches on center.

6

Choose your installation method.

The indoor unit also comes equipped with 4 hooks (2 on each short end) that are designed to suspend the unit via threaded rod.

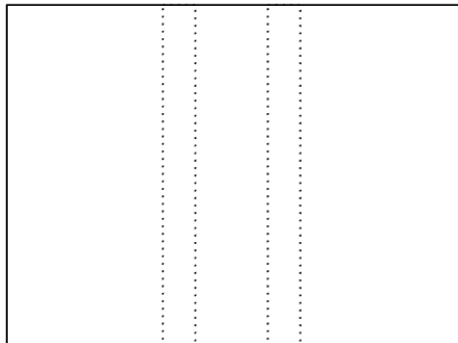


Can be used if your joists are 24 inches on center.

Bracket Install method

7

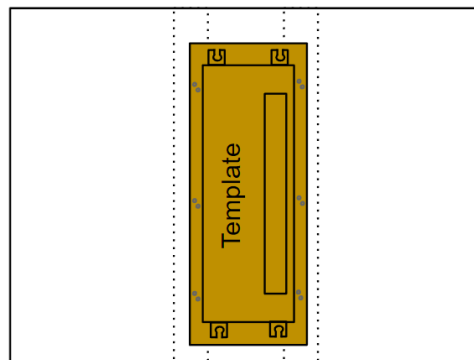
16 inch on center joists indoor installation.



Joists hidden above the ceiling.

8

Ensure that the template is centered between and parallel to the joists, while maintaining the recommended clearances.

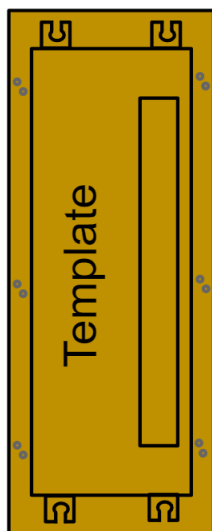


Draw an outline around the template on all four sides. You will cut out this section of ceiling later.

9

Pre-drill mounting holes.

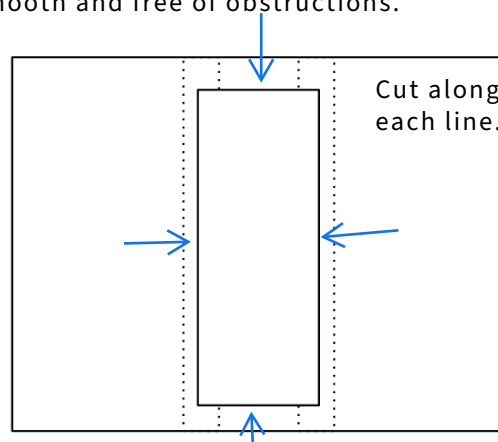
Use a 1/4 inch bit to drill the the mounting holes in the joists prior to hanging the indoor unit. Three mounting points per long side is recommended.



10

Remove the outlined section.

Carefully cut away the section of the ceiling you outlined earlier. Make sure the now exposed joists are smooth and free of obstructions.



11

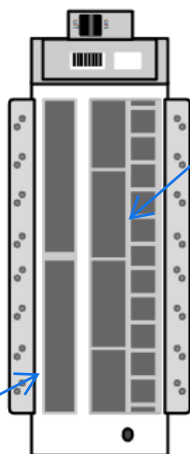
Mount the unit (this is a 2 person job).

Make sure that the smaller opening is pointed towards the closest wall

10 feet of clearance is recommended between the larger opening and any major obstructions.

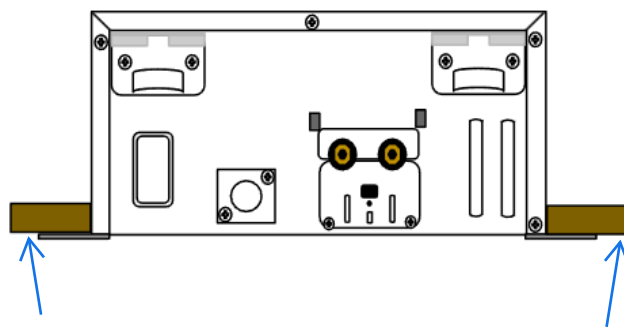
Smaller opening
air inlet.

Larger
Opening
air outlet



12

Insert the body of the indoor unit into the opening in the ceiling.

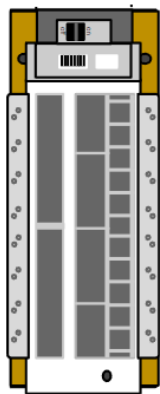
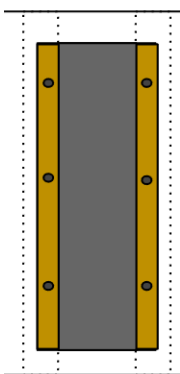


This is a 2 person job!

13

Secure the unit to the joists.

Use the included ST8.0*50 screws to secure the unit to the joists, via the 6 holes you drilled earlier.

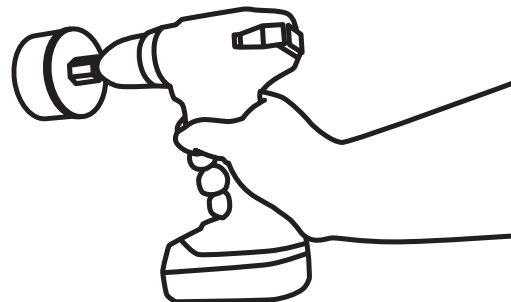


This is a 2 person job!

14

Drill a hole through the wall, maintaining a slight pitch downwards to aid outside drainage.

A common installation practice for these models also involves drilling a vertical hole and running the copper tubing, along with the 14/4 stranded wire, through the soffit



Hole must be free of electrical wiring, plumbing, or other obstructions.

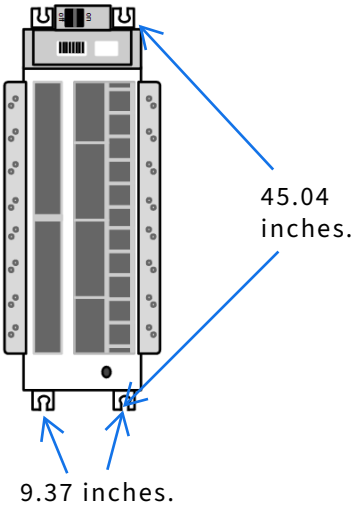
Threaded Rod Method

15

Key measurements.

Note the spacing between where the threaded rod will connect to the indoor unit.

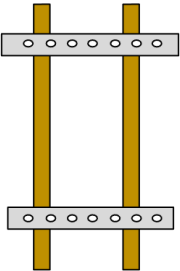
You will need to mirror this spacing when suspending the threaded rod.



16

Prepare the hanging support structure.

Bottom up viewpoint.



Above where the indoor unit will be installed, you need to use unistrut or 2x4 lumber to create a **solid, secure, level** structure for the threaded rod to install into.

Hanging hardware is not included.

17

Measure the distance from the support structure to the ceiling and add 12 inches.

Support
Structure



Ceiling

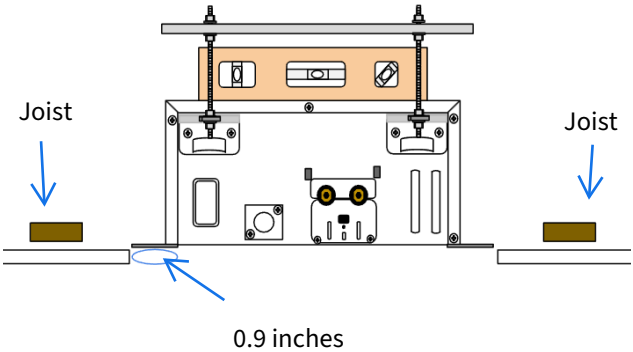


Select 3/8 inch threaded rods that match the last measurement x4 . This will allow for flexibility during the installation. It is common to cut the threaded rod to size using a hacksaw or sawzall.

18

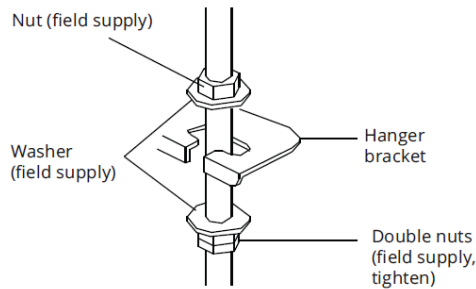
Hang the indoor unit. This is a 2 person job.

The bottom of the indoor unit needs to be installed level, with a 0.9 inch gap between the bottom of the unit and the interior of the ceiling.



19

Hang the indoor unit.

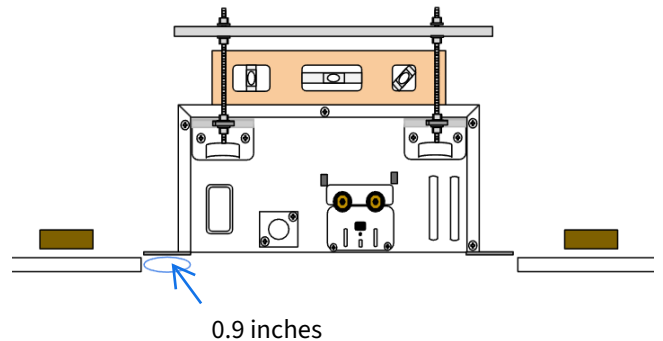


Attach the hanger brackets to the threaded rods. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket.

20

Adjust the unit to the right position for installation.

Verify you have the 0.9 inches from the bottom of the indoor unit to the interior of the ceiling.

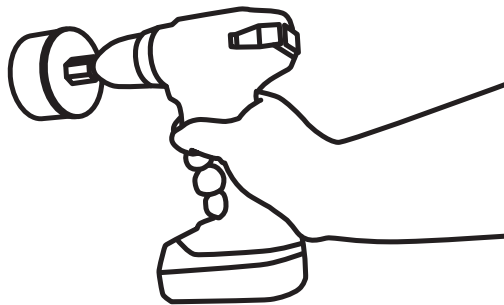


Ensure that the unit is level. Failure to do so can cause operational issues and condensation leaks.

21

Drill a hole through the wall, maintaining a slight pitch downwards to aid outside drainage.

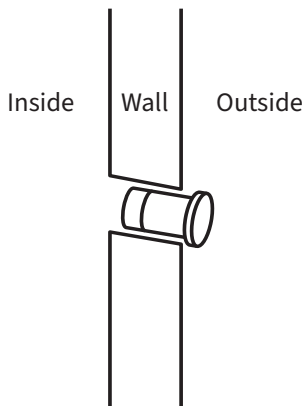
A common installation practice for these models also involves drilling a vertical hole and running the copper tubing, along with the 14/4 stranded wire, through the soffit.



Hole must be free of electrical wiring, plumbing, or other obstructions.

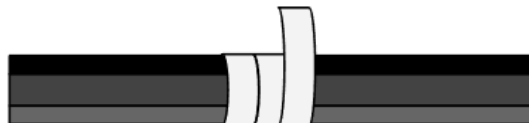
22

Insert wall sleeve through the wall with the flange facing the exterior. A wall sleeve isn't typically needed if drilling a vertical hole into a soffit.



23

Bundle the copper tubes and connection wires together. Feed the bundle through the wall to the outside.



Leave enough copper tubing and 14/4 stranded wire to easily connect to the indoor unit.

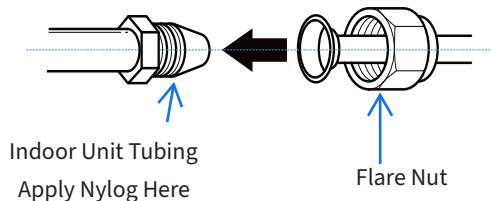
Use PVC electrical tape to secure the bundle. Do so every 5 feet.

The minimum copper tubing is 10 feet. If that length is longer than needed, reposition the outdoor unit or horizontally coil the refrigerant lines after connection.

24

Connect the the copper tubes to the indoor unit.

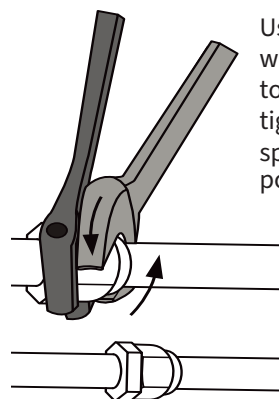
Remove caps from the line set connections on air handler.



Apply a couple of drops of Nylog sealant to the male side of the flare connection.

25

Secure the copper tubing to the indoor unit.



Use a standard wrench and a torque wrench to tighten to the specified foot pounds of torque.

! Do not over-tighten

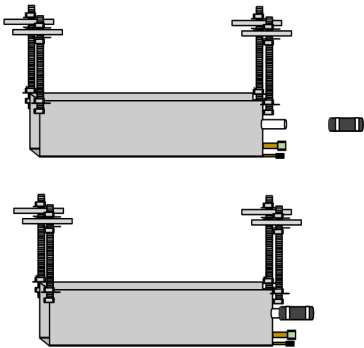
26

Connect the condensate drain line.

Use 3/4 inch PVC

These models have a factory installed condensate pump with a float switch designed to pump the water up to 18 inches vertically. After the up to 18 inches of rise, you must gravity drain. A minimum downwards pitch of 1/4 inch per foot or greater is recommended.

Use the included short drain adapter.



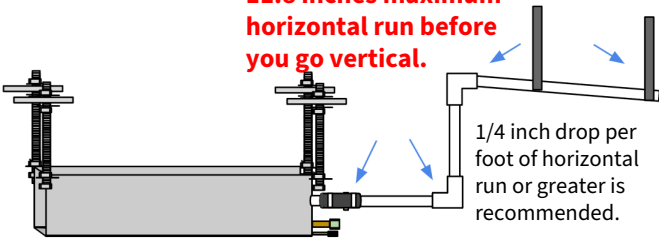
Seat the adapter as far on the drain connection as you can. Use the included metal clamp to secure the adapter

27

Connect the drain line.

Add support every 3-5 feet.

11.8 inches maximum horizontal run before you go vertical.



You must lift the water at least 1 inch above the top of the drain outlet before pitching downwards.

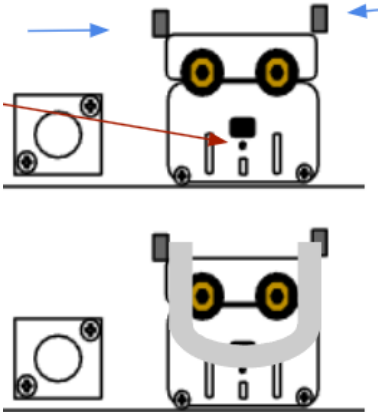
The water must terminate outside the structure or into a drain.

Use PVC cement to attach the 3/4 inch PVC to the adapter and to assemble the drain.

28

Install the water receiver.

Position the water trap below the copper tubing connections. Insert the tabs of the water trap at the blue arrows and use a ST4.8*12 screw to secure the trap at the red arrow.



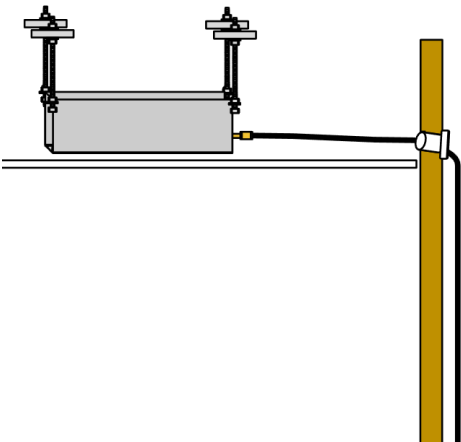
It is recommended to insulate any exposed copper fittings after you have completed and tested the installation.

29

Bend the copper tubes on the exterior of the wall towards the outdoor unit.



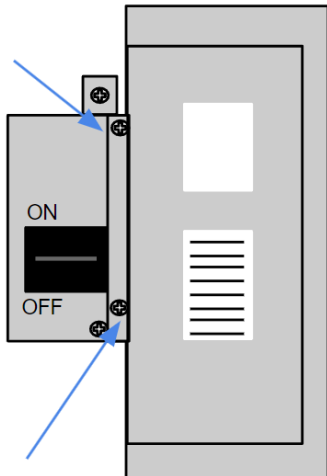
Do not kink the line set.



With lines larger than 3/8 inch OD, use of a tubing bender is recommended.

30

Expose the wiring connections.



Remove the two screws holding the board cover. Then remove the cover.

31

Expose and connect the 14/4 wire.

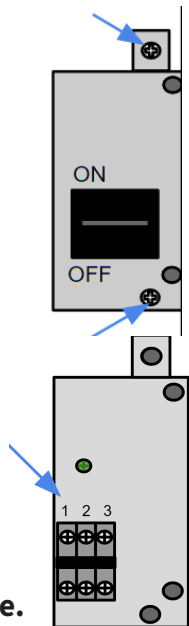
Remove the two screws indicated to expose the wire connections.

Wire as following:

- Black to 1
- Red to 2
- White to 3
- Green to the green ground screw

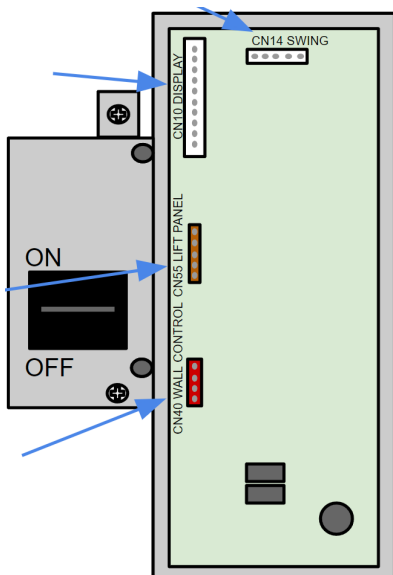
Regardless of how the numbers are ordered, wire black to 1, red to 2, white to 3, and green to the ground screw.

You must use 14/4 stranded wire.



32

Key wire locations on the board.



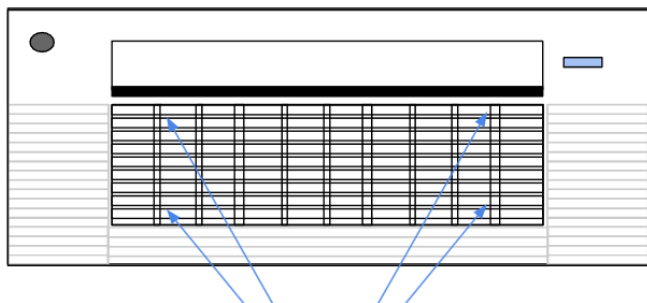
- White 10 pin connector to CN10 display.
- Red 5 pin connector to CN55 lift panel.
- White 5 pin connector to the CN14 SWING.
- Red 4 pin connector from the wall controller to the red 4 pin CN40 port.



Using the included wifi controller is highly encouraged to optimize system performance.

33

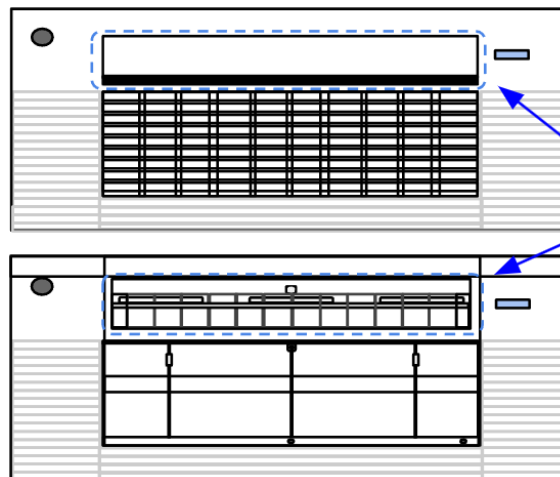
Prepare to install the grille.



Grab the 4 points indicated, and slowly pull the grille away from the panel. The grille stays attached to the panel; You are just creating some working space.

34

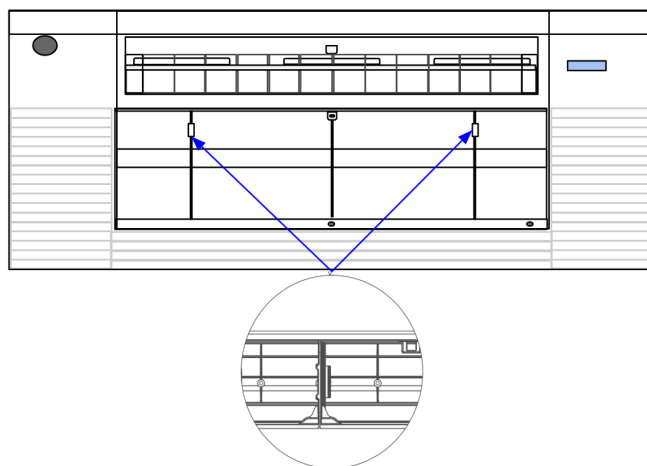
Install the decoration panel.



Manually open the louver.

35

Install the decoration panel.

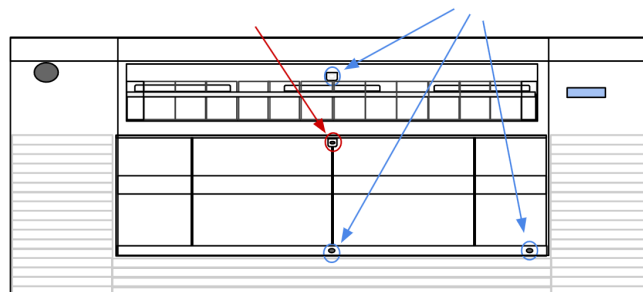


Fix the cassette panel to the slim cassette by two plastic clamps.

36

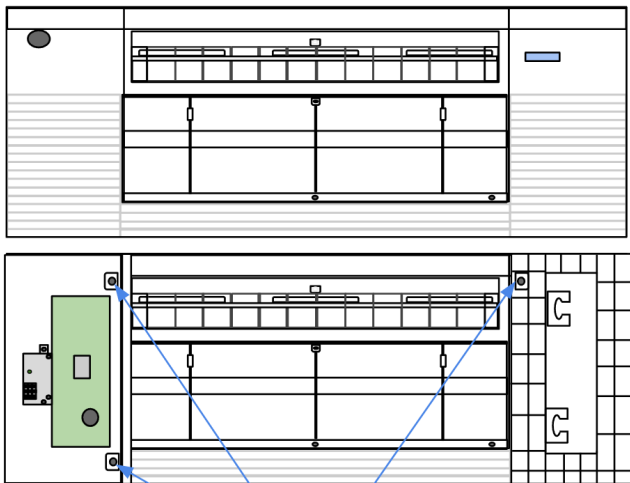
Install the decoration panel.

Use M4*22 screws at the blue arrows. Open the screw cover and use a ST3.9*16 screw at the red arrow. Make sure to close the cover when done.



37

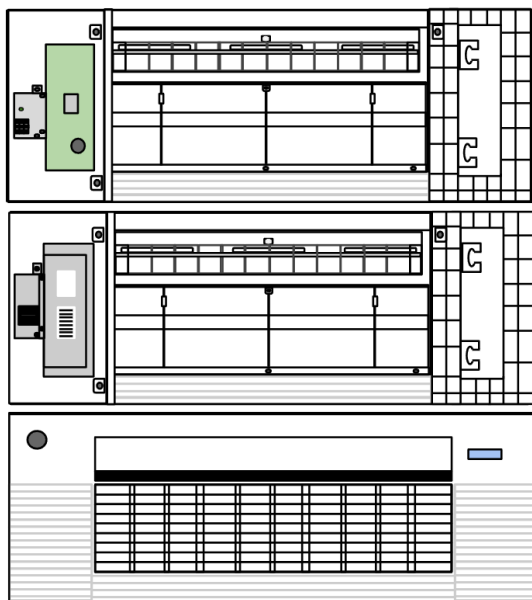
Open the covers at each end of the panel.



Use M4*22 screws at the blue arrows.

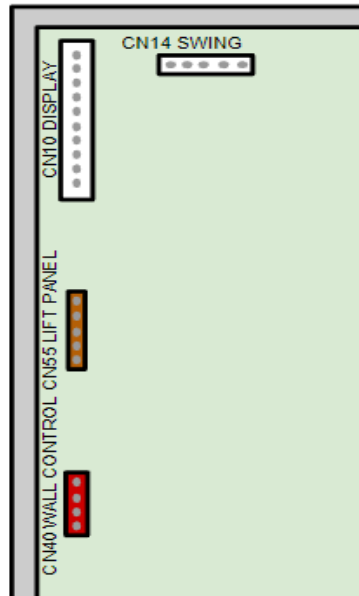
39

Reinstall the covers.



38

Make the wiring connections



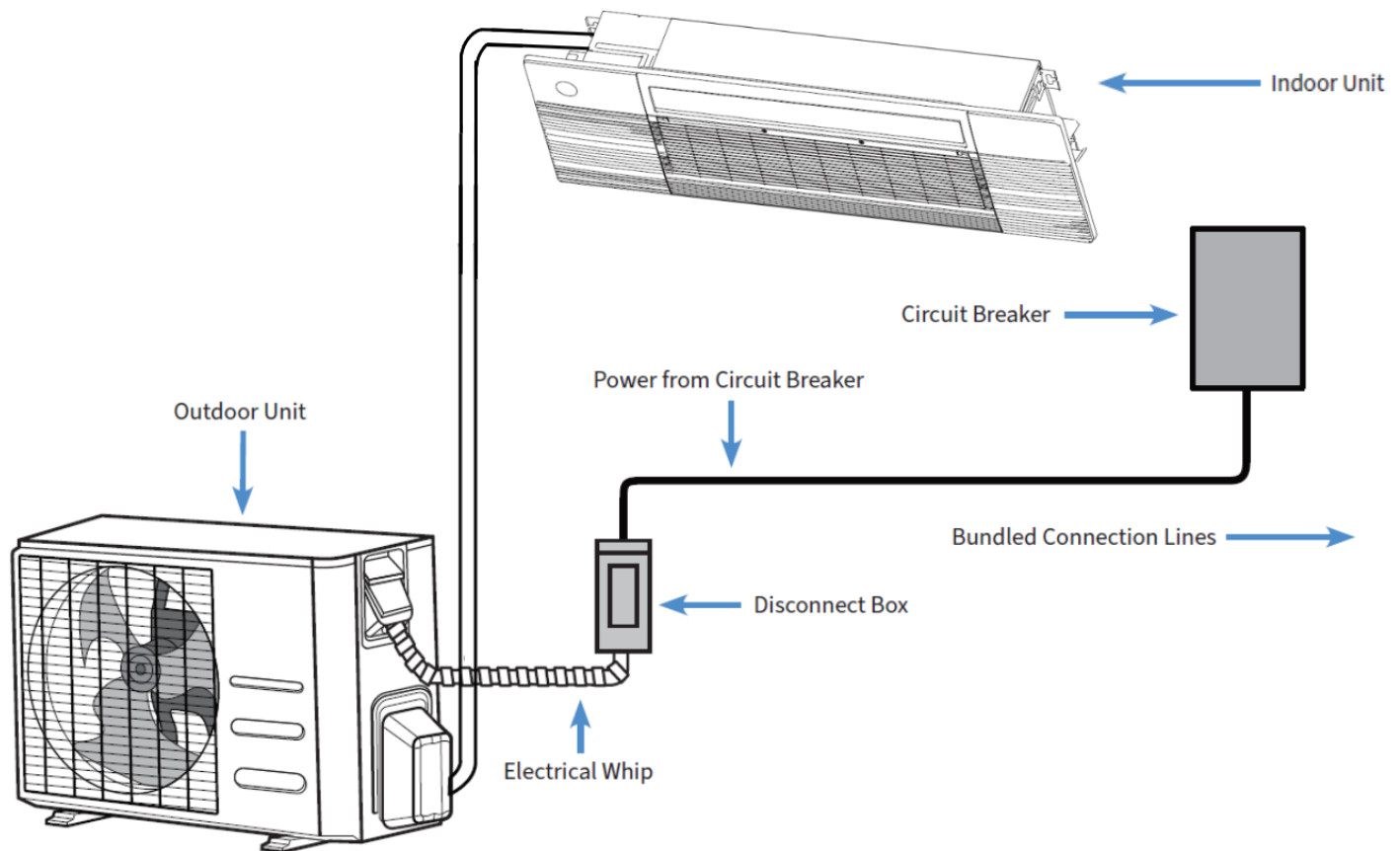
- White 10 pin connector to CN10 display .
- Red 5 pin connector to CN55 lift panel.
- White 5 pin connector to the CN14 SWING.
- Red 4 pin connector from the wall controller to the red 4 pin CN40 port.
- Bundle the wires when done.



Using the included wifi controller is highly encouraged to optimize system performance.



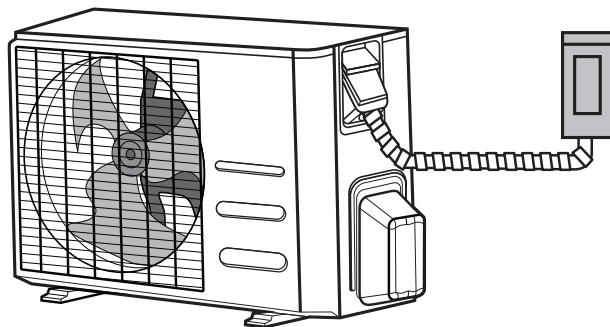
- Any high voltage electrical installation should be performed by an electrician or contractor.
- Make sure the electricity is off.
- Follow all local and national electrical codes.
- Always verify line and load lug locations on the disconnect prior to wiring.
- Wiring shown is based on load, line, line, load on the disconnect box.



40

Using correct size breaker and wire, run the power to the disconnect box mounted beside the outside unit.

- Connect the indoor unit to the outdoor unit.
- Connect the outdoor unit to the disconnect box with the electrical whip.

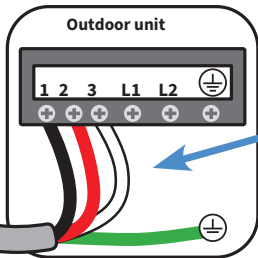
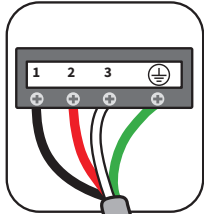


See next page for wiring diagrams

41

Connect indoor unit to the outdoor unit.

Indoor unit



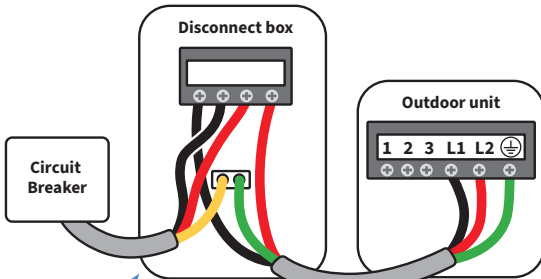
black to 1
red to 2
white to 3
green to a ground screw

42

Connect outdoor unit to disconnect box.



Wiring shown is based on load, line, line, load on the disconnect box.



black to line 1
red to line 2
bare to ground

black to load 1
red to load 2
green to ground

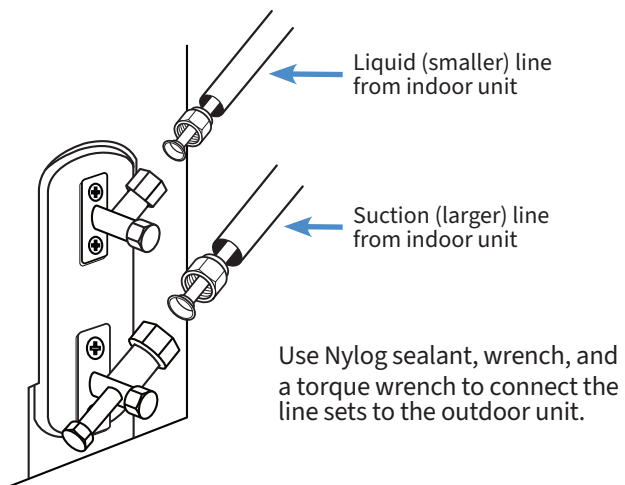
black to L1
red to L2
green to ground



BLUERIDGE

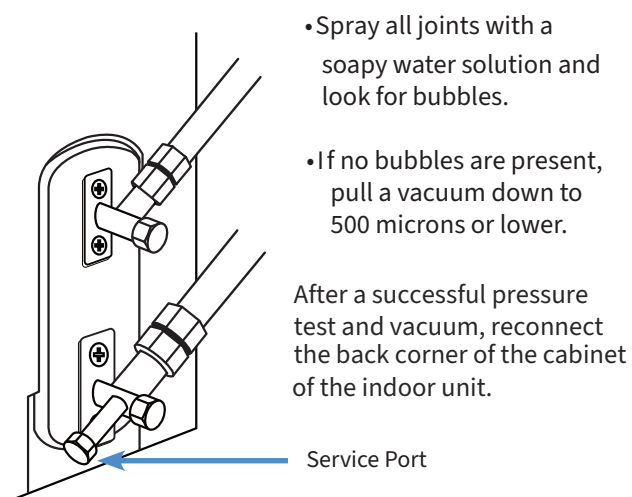
43

Remove caps from the outdoor unit .



44

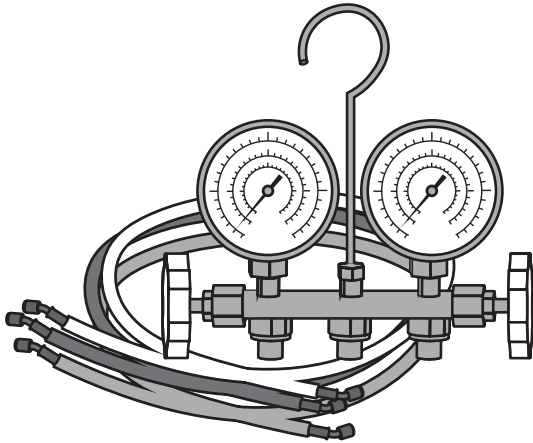
Remove cap from the service port on the suction line and perform a pressure test to 300 - 350 psi from the outdoor unit.



Warning: Refrigerant handling should be done by a trained professional.

45

After creating the vacuum, close the valves to the vacuum pump.

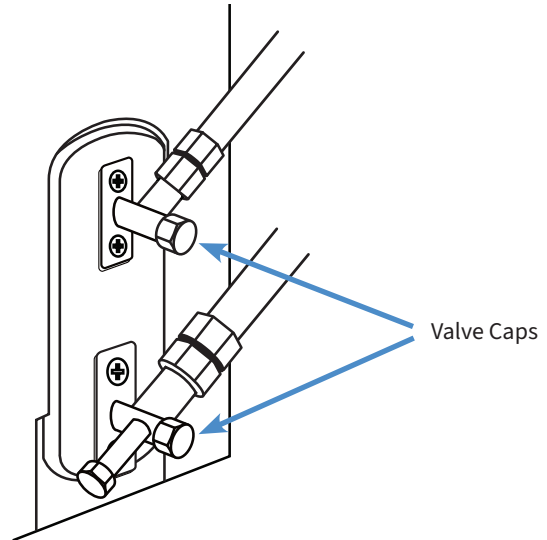


Add refrigerant if the line set used is more than 25 feet in length.

- Add 0.16 oz per foot past 25 if using 1/4 inch OD liquid lines (In 0.75, 1.0, and 1.5 ton models)
- Add 0.32 oz per foot past 25 if using 3/8 inch OD liquid lines (In 2.0 ton models)

46

Open horizontal facing valve caps.



- Use a 5mm allen wrench (hex key) to fully open the lower and then upper valve, releasing the refrigerant into the system .
- Replace caps over open valves.

47

Power up and start the system.

Please call 1.800.865.5931 if you have any questions prior to or during the installation process of your Blueridge Mini-Split System.

Because of the Blueridge promise for continuous product innovation and improvement, some specifications and instructions may change without notification.