

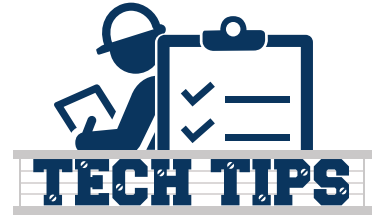


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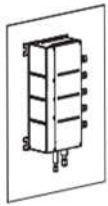


MITSUBISHI BRANCH BOX INSTALL CHECKLIST

For branch box wall installations, outdoor unit connections must face down. It is easy to change panels on the branch box for connecting indoor units to the left side if needed. See instructions in the branch box install manual. Mounting a branch box horizontally from the ceiling or on a bracket is also correct.

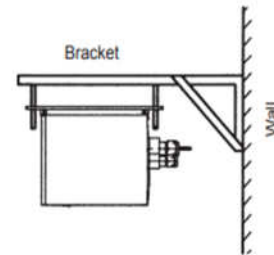
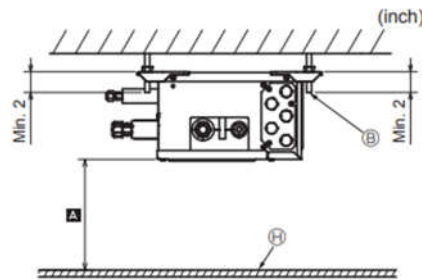


The installation direction is limited when installing on a wall. (Fig. 4-12)



Correct installation direction

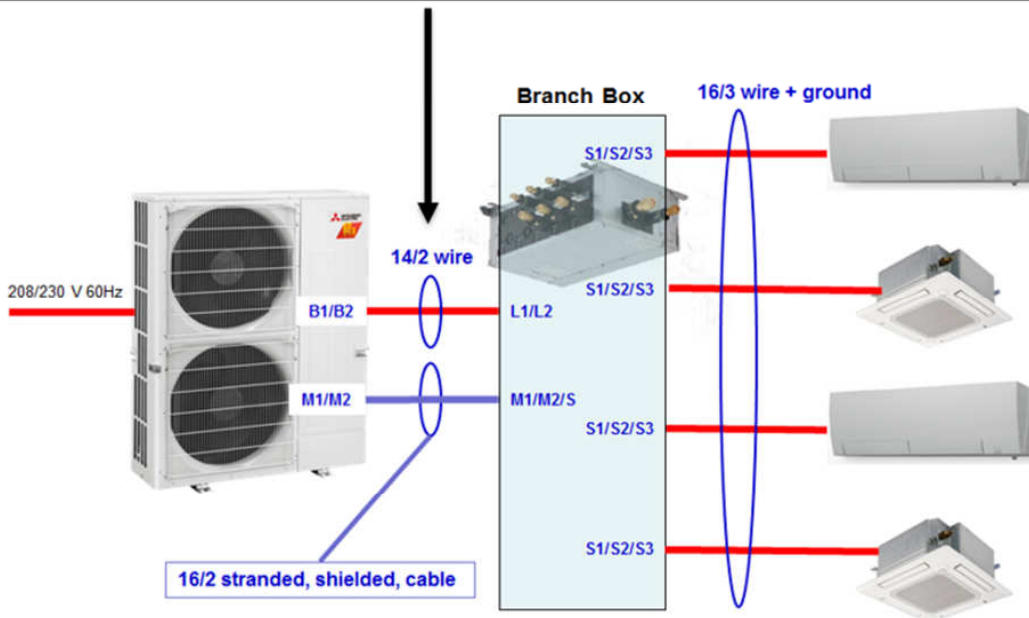
When installing the unit on the wall, install the piping connected to the outdoor unit facing down. Other ways are not acceptable.



There are two options for powering up the branch box.

Option 1: Branch box powered from the outdoor unit.

Power for branch box supplied from the outdoor unit

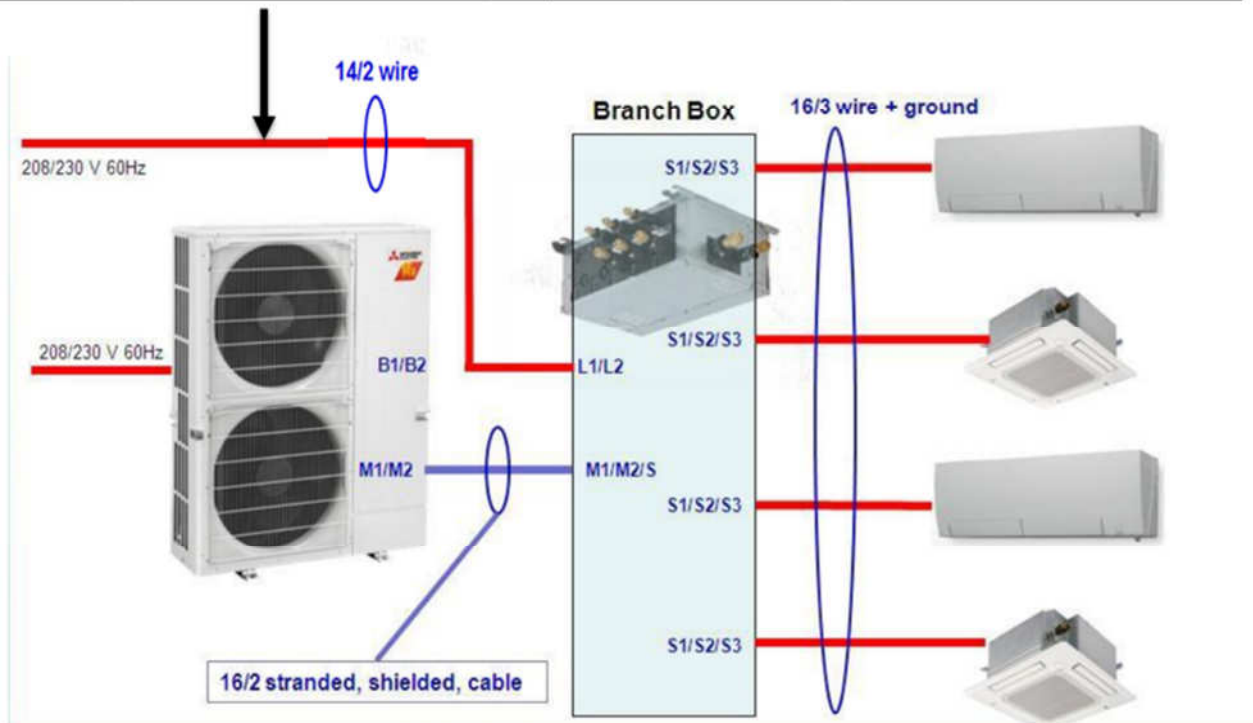


Power supplied from Outdoor Unit

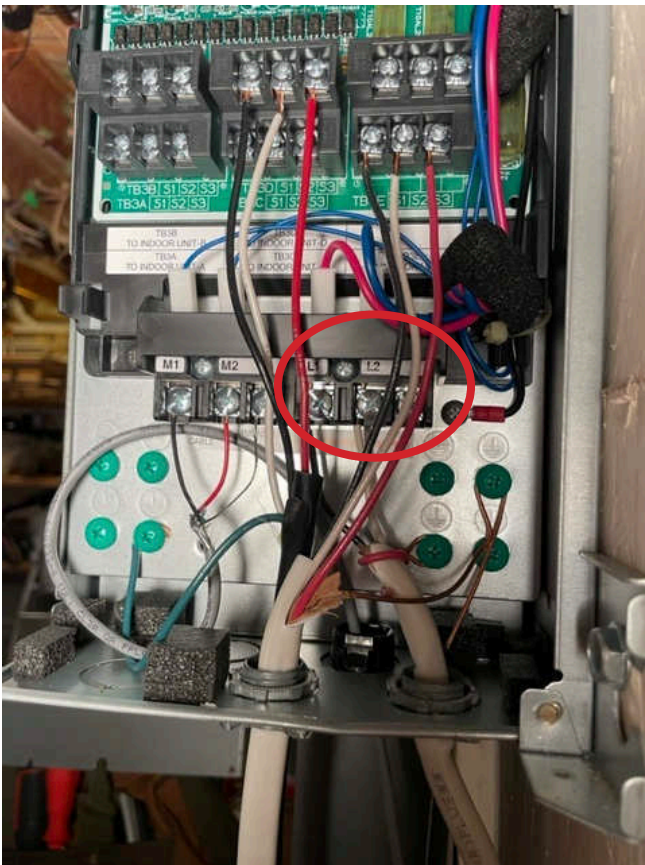
Follow local code

Option 2: Branch box powered independently.

Power for branch box separate from the outdoor unit



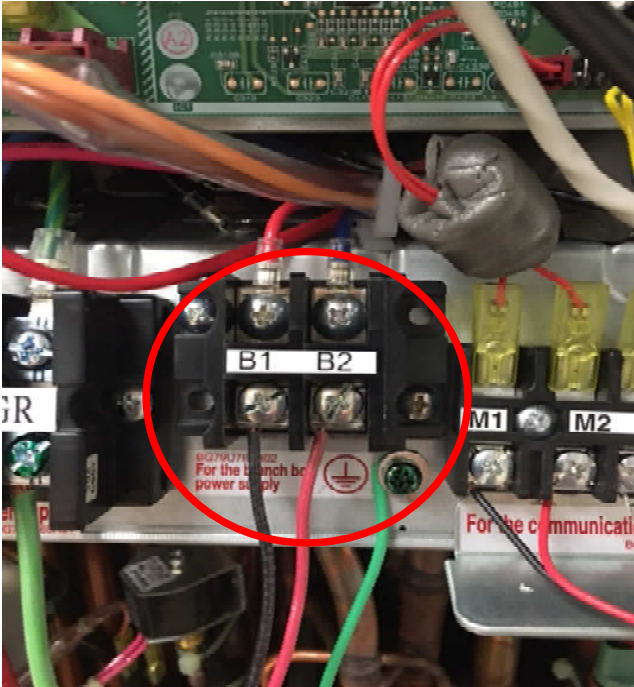
Verify branch box power from the outdoor unit or its own circuit breaker is 14/2 with ground.



Branch box

If the outdoor unit is powering the branch box, verify the branch box power wiring.

B1 and B2 from the outdoor unit to the branch box are 14/2 with ground. Single phase: 208/230V.



Outdoor unit

Verify communication wire from outdoor unit to branch box.

Wires from M1, M2 and S on the outdoor unit must be 16/2 stranded shielded wire.

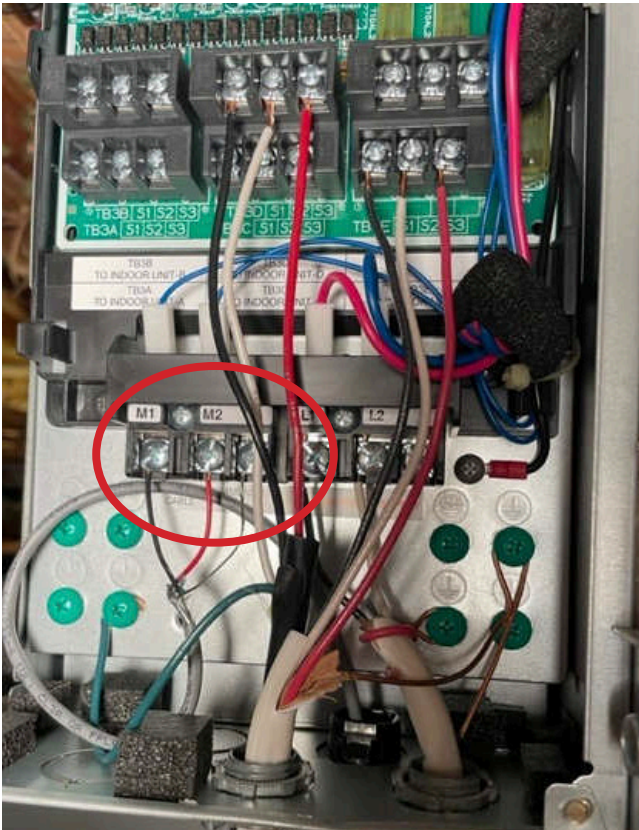


Outdoor unit

Note: Supplied jumper wire (located in the installation instruction bag) is **not used** when connecting the communication cable to the left side. In commercial applications with a central controller wired to the right side, the jumper wire must be connected between the S terminal and the ground.



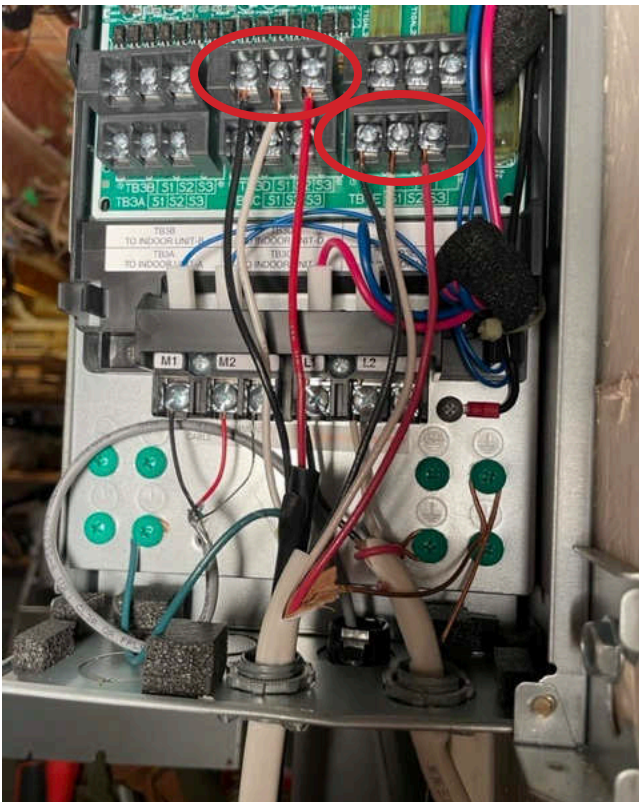
Branch box communication wire must be 16/2 stranded shielded wire.



Branch box

Verify branch box to indoor units wiring is 16/3 with ground.

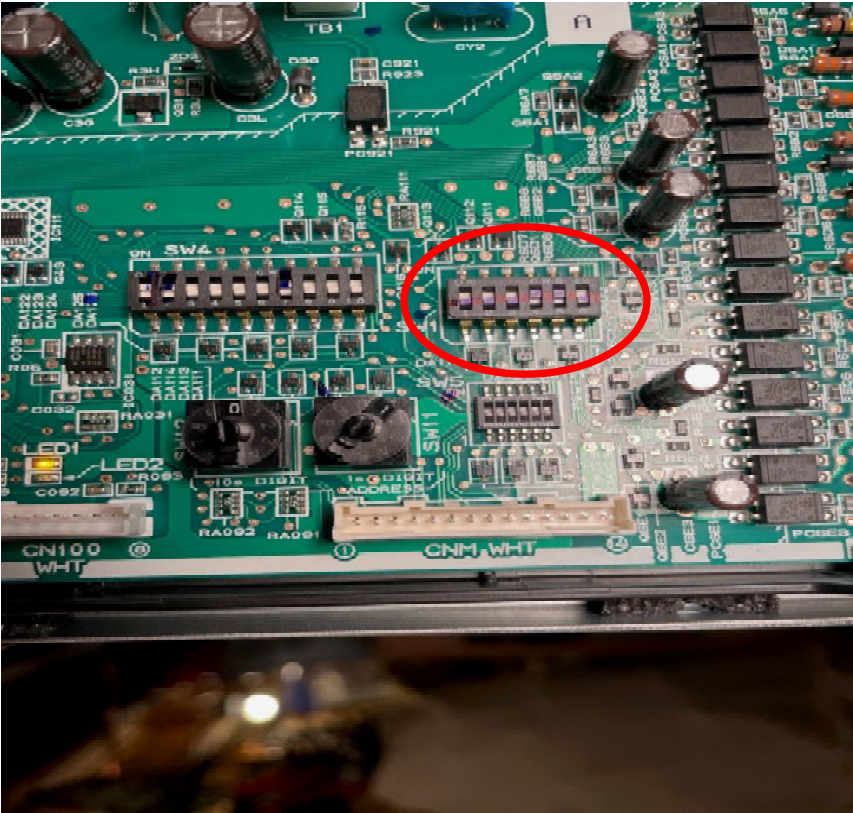
Note: This includes wiring to PAA intelli-Heat control box S1, S2 and S3.



Branch box

Verify/set dip switch settings.

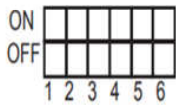
On the branch box, locate SW1 and turn on the dip switches corresponding to the refrigeration ports that have indoor heads connected.



Branch box

Dip switch setting (Effective only before turning on the power)

SW1

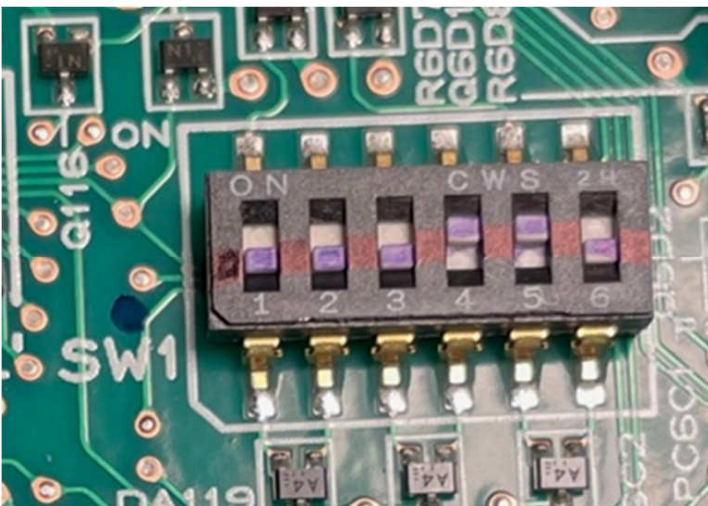


(Example)

- When the indoor units are connected to Indoor unit A and C, turn SW1-1 and SW1-3 to on.

			OFF	ON
SW1	1	Indoor unit A	Not connected	Connected
	2	Indoor unit B	Not connected	Connected
	3	Indoor unit C	Not connected	Connected
	4	Indoor unit D	Not connected	Connected
	5	Indoor unit E	Not connected	Connected
	6	Not used		

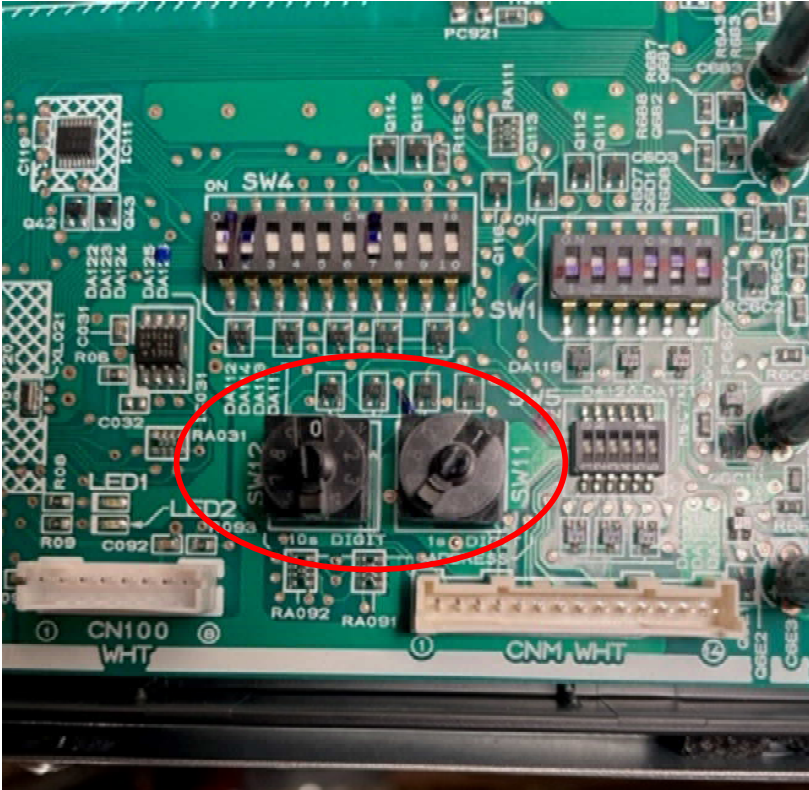
Example: The picture below shows the indoor units connected to ports four and five with the SW1-4 and SW1-5 dip switches on.



Branch box SW1

Verify/set rotary dial on branch box.

If only one branch box is connected to the system, set SW11 to one and SW12 to zero.



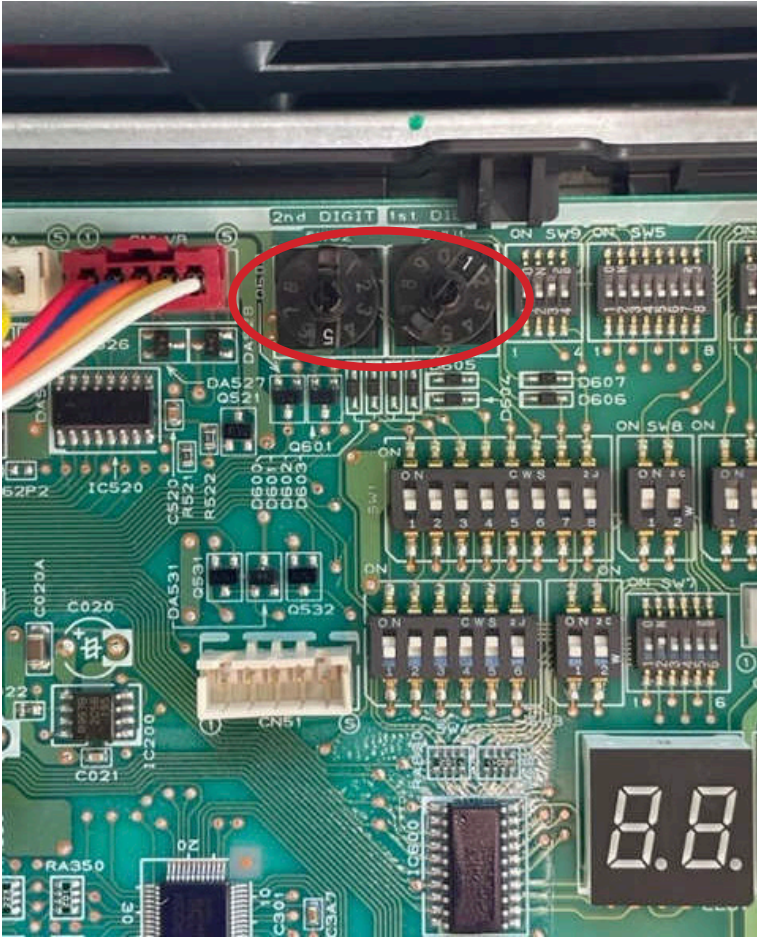
Branch box

If two branch boxes are connected, set the first branch box as above. The second branch box will need to be set to the total number of indoor units connected to branch box number one, plus one.

Example: Branch box number one has four units connected to it. Branch Box number two will need the rotary dial SW11 set to five (BB1: $4+1 = 5$).

Verify/set rotary dials on the outdoor unit.

Locate rotary dials SWU1 and SWU2 on the outdoor unit. Set SWU1 to one and SWU2 to five.



Outdoor unit

Calculate additional refrigerant charge.

Branch box units require additional charge based on liquid line (mixed phase) length and total connected indoor unit capacity.

Option 1

Model	Total ft. of installed 1/4 in. lineset	Total ft. of installed 3/8 in. lineset
SM36/42/48	add .21 oz./ft.	add .55 oz./ft.
SM60	add .29 oz./ft.	add .75 oz./ft.

Next, add the total BTU capacity of the connected indoor units.

If the total is:

12K-27K add 53 oz.

28K-54K add 88 oz.

55K-62K add 106 oz.

Example for MXZ-SM42

Total line length 1/4 in. is 75 ft. x .21 = 15.75 oz.

Total line length 3/8 in. is 48 ft. x .55 = 26.40 oz.

Total capacity 54K 88.00 oz.

Total additional charge 130.15 oz.

Round up to the nearest oz. or 12.8 lbs.

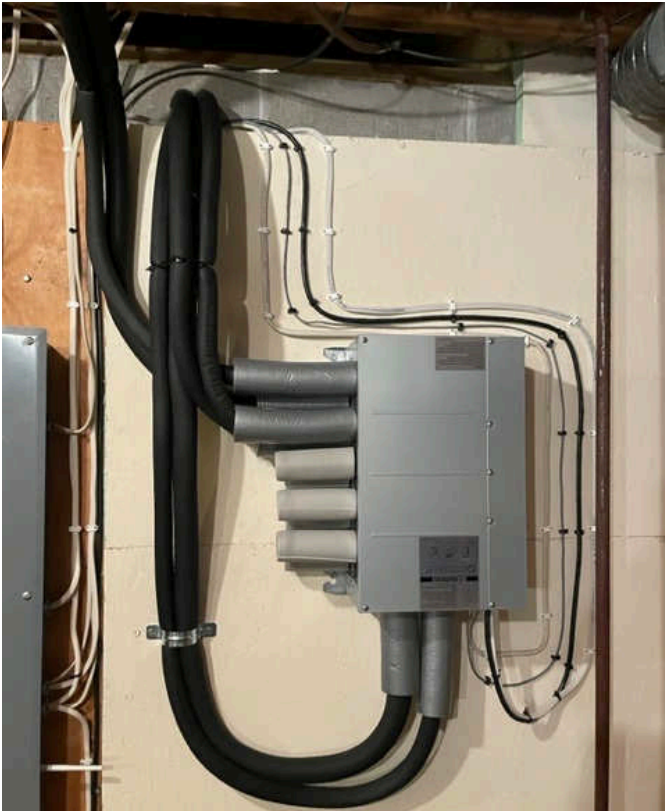
$$\text{Number of lbs.} = \frac{\text{number of oz.}}{16} \quad \frac{130.16}{16} = 8.14 \text{ lbs. of additional refrigerant}$$

Option 2

Enter your system into Diamond System Builder to calculate the additional charge needed.

Install included pipe cover to all ports on the branch box to prevent condensation.

The branch box below has had panels removed and repositioned to connect indoor units to the left side. Instructions are in the install manual.



Branch box

Resource for installation and service manuals: www.mylinkdrive.com.