

SINGLE PHASE OUTDOOR UNIT BASE PAN HEATER INSTALLATION MANUAL KEH3P648291

Read these Safety Considerations carefully before installing the drain pan heater. After completing the installation, check if the unit operates properly during the start-up operation.

Meaning of **DANGER**, **WARNING** and **CAUTION**

	DANGER	Indicates an imminently hazardous situation which, if not avoided will result in death or serious injury.
	WARNING	Indicates a potentially hazardous situation which, if not avoided will result in death or serious injury.
	CAUTION	Indicated a potentially hazardous situation which, if not avoided may result in major or moderate injury. It may also be used to alert to against unsafe practices.
	DANGER	Do not touch the heater unit without wearing gloves. The temperature of the heater unit will become high when the heater is turned on. Touching the heater unit with bare hands will result in burns or injury.

IMPORTANT!

- The purpose of this heater is to melt snow that blows in from the outside and to prevent frost growth on the bottom frame of the outdoor unit.
- Do not shut off the power supply of the ground fault circuit interrupter even while this heater is stopped.
- Increasing the size of the power supply wiring (leading wire) is required depending on the model of the indoor unit.
- This product cannot be used in combination with a central drain plug.
- At heavy snowfall regions, also install a snow protection hood or high stand.
- Inform users that they should store this installation manual for future reference.
- After completing the installation, make sure that the unit operates properly during the startup operation.
- All phases of the field installation, including, but not limited to, electrical, piping, and safety, must be done in accordance with manufacturer's instructions and must comply with national, state, provincial, and local codes.

Our continuing commitment to quality products may mean a change in specifications without notice.

© 2024 **DAIKIN COMFORT TECHNOLOGIES MANUFACTURING, L.P.**



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPACITIES, 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 EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

DO NOT BYPASS SAFETY DEVICES.



WARNING

FOR THE TRANSMISSION WIRING AND THE POWER SUPPLY WIRING, ROUTE THE WIRINGS IN SUCH A WAY THAT SERVICE COVERS AND OTHER STRUCTURES DO NOT RISE UP, AND SECURELY INSTALL COVERS AND PANELS. INCOMPLETE INSTALLATION OF COVERS AND PANELS MAY CAUSE ELECTRIC SHOCK OR FIRE.



Drain Pan Heater	Daikin Outdoor Unit Models	Tonnage
KEH3P648291	DH9VSA241C**	2
	DH9VSA361C**	3
	DH7VSA6010**	5
	DC9VSA6010**	5





WARNING

THIS EQUIPMENT CAN BE INSTALLED WITH A GROUND-FAULT CIRCUIT INTERRUPTER (GFCI). ALTHOUGH THIS IS A RECOGNIZED MEASURE FOR ADDITIONAL PROTECTION, WITH THE GROUNDING SYSTEM IN NORTH AMERICA, A DEDICATED GFCI IS NOT NECESSARY. SHUT OFF THE POWER SUPPLY BEFORE TOUCHING ELECTRICAL PARTS. THERE IS THE RISK OF ELECTRIC SHOCK IF CHARGED PARTS ARE TOUCHED.

FOR THE TRANSMISSION WIRING AND THE POWER SUPPLY WIRING, ROUTE THE WIRINGS IN SUCH A WAY THAT SERVICE COVERS AND OTHER STRUCTURES DO NOT RISE UP AND SECURELY INSTALL COVERS AND PANELS.

INCOMPLETE INSTALLATION OF COVERS AND PANELS MAY CAUSE ELECTRIC SHOCK OR FIRE. USE THE SPECIFIED WIRES, AND FIRMLY CONNECT AND SECURE THE WIRES SO THAT THE FORCE OF THE WIRES IS NOT APPLIED ON THE TERMINAL CONNECTIONS.

INCOMPLETE CONNECTION OR FIXING OF WIRES MAY CAUSE ELECTRIC SHOCK, GENERATION OF HEAT OR FIRE.



WARNING

- REQUEST THE DEALER OR AN AUTHORIZED TECHNICIAN TO INSTALL THE PRODUCT. IMPROPER INSTALLATION OF THE PRODUCT COULD RESULT IN WATER LEAKAGE, AN ELECTRIC SHOCK, OR FIRE.
- THE PRODUCT MUST BE INSTALLED ACCORDING TO THE INSTRUCTIONS GIVEN IN THIS MANUAL. INCOMPLETE INSTALLATION OF THE PRODUCT COULD RESULT IN WATER LEAKAGE, AN ELECTRIC SHOCK, OR FIRE.
- USE THE SUPPLIED OR SPECIFIED INSTALLATION PARTS. USE OF OTHER PARTS COULD RESULT IN THE UNIT BECOMING LOOSE AND FALLING, WATER LEAKAGE, ELECTRIC SHOCK, OR FIRE.
- TURN OFF THE POWER SUPPLY AT THE TIME OF INSTALLATION. TOUCHING ANY ELECTRICAL PARTS WITH THE POWER SUPPLY TURNED ON COULD RESULT IN ELECTRIC SHOCK.
- USE SPECIFIED WIRES. CONNECT AND FIX THE WIRES SO THAT THE WIRES WILL NOT PUT IMPROPER FORCE ON THE TERMINAL JUNCTIONS. WIRES CONNECTED OR FIXED IMPROPERLY COULD RESULT IN TERMINAL OVERHEATING, AN ELECTRIC SHOCK, OR FIRE.
- WHEN WIRING AND CONNECTING THE INDOOR AND OUTDOOR UNITS, CAREFULLY ARRANGE THE WIRING SO THAT THEY WILL NOT PUT IMPROPER FORCE ON THE STRUCTURES. INSTALL COVERS OVER THE WIRES. INCOMPLETE COVER INSTALLATION COULD RESULT IN TERMINAL OVERHEATING, AN ELECTRIC SHOCK, OR FIRE.



CAUTION

DO NOT INSTALL THE UNIT IN THE FOLLOWING LOCATIONS:

1. WHERE A MINERAL OIL MIST OR OIL SPRAY OR VAPOR IS PRODUCED, FOR EXAMPLE, IN A KITCHEN. PLASTIC PARTS MAY DETEriorate AND FALL OFF OR RESULT IN WATER LEAKAGE.
2. WHERE CORROSIVE GAS, SUCH AS SULFUROUS ACID GAS IS GENERATED, WHERE ACIDIC OR ALKALINE STEAM MIST FORMS, AND IN A SALTY ATMOSPHERE SUCH AS COASTAL AREAS. CORRODING COPPER PIPES OR SOLDERED PARTS MAY RESULT IN REFRIGERANT LEAKAGE.
3. NEAR MACHINERY EMITTING ELECTROMAGNETIC WAVES OR WHERE THERE ARE LARGE VOLTAGE FLUCTUATIONS SUCH AS FACTORIES. ABNORMALITIES MAY OCCUR IN THE CONTROL SYSTEM WHICH WILL PREVENT NORMAL OPERATION.
4. WHERE FLAMMABLE GAS MAY LEAK, WHERE THERE IS CARBON FIBER, OR IGNITABLE DUST SUSPENSION IN AIR, OR WHERE VOLATILE FLAMMABLES SUCH AS THINNERS OR GASOLINE ARE HANDLED, AND VEHICLES, MARINE VESSELS, ETC. ANY GAS LEAKING AND BUILDING UP AROUND THE UNIT MAY CAUSE COMBUSTION.
5. DO NOT INSTALL THE PRODUCT IN PLACES WHERE THERE IS DANGER OF EXPOSURE TO FLAMMABLE GAS LEAKAGE. IF THE GAS LEAKS AND BUILDS UP AROUND THE UNIT, IT MAY CATCH FIRE.
6. DO NOT INSTALL THE OUTDOOR UNIT IN PLACES WHERE SMALL ANIMALS MAY NEST IN THE OUTDOOR UNIT. IF SMALL ANIMALS INTRUDE AND TOUCH THE INTERNAL PARTS OF THE OUTDOOR UNIT. THE OUTDOOR UNIT MAY MALFUNCTION, GENERATE SMOKE, OR IGNITE. ADVISE THE USER TO KEEP THE PLACE CLEAN.



CAUTION

- WEAR PROTECTIVE GLOVES AT THE TIME OF INSTALLATION. TOUCHING THE SUCTION GRILLE OR ALUMINUM FIN OF THE OUTDOOR UNIT MAY RESULT IN INJURY.
- DO NOT GRAB THE TOP PLATE OF THE OUTDOOR UNIT CARELESSLY WHEN REMOVING THE TOP PLATE. THE SHARP EDGE OF THE TOP PLATE MAY CAUSE INJURY.

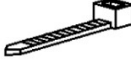
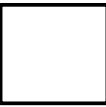
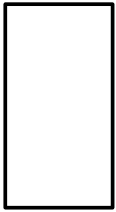
REFERENCE OF DRAIN PAN HEATER INSTALLATION MANUAL

Safety Considerations for Installation of Drain Pan Heater

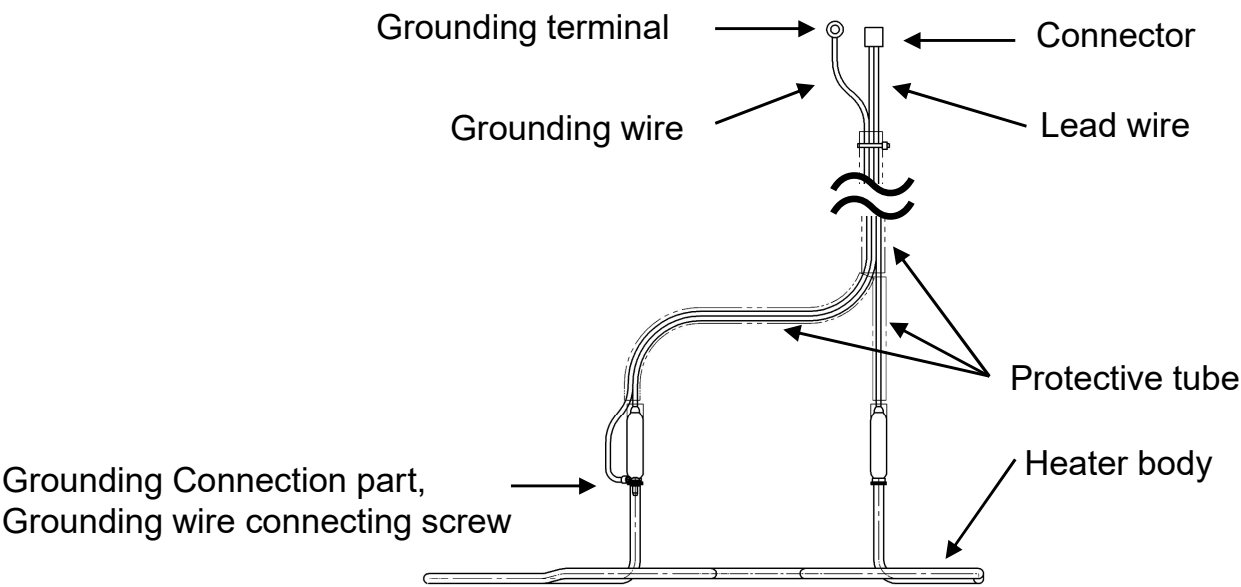
- This product cannot be used in combination with a central drain plug.

ACCESSORIES

1. Make sure that the required quantities of the following accessories are included in the product package.

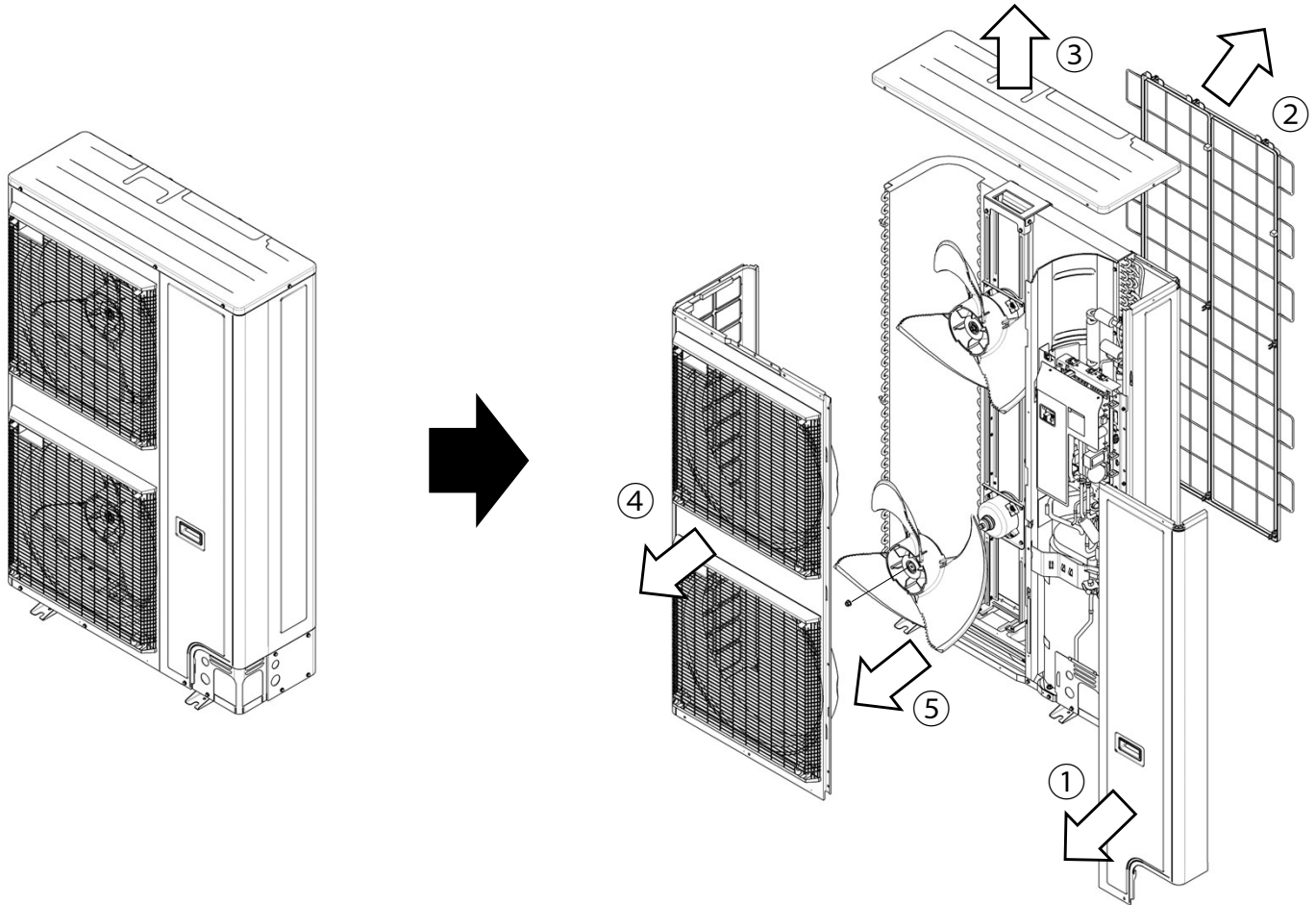
Name	Drain pan heater	Heater fixture	Screw
Q'ty	1	2	2
Shape			
Name	Tie	Felt	Aluminum Sheet
Q'ty	6	2	2
Shape			

NAME OF HEATER BODY PARTS



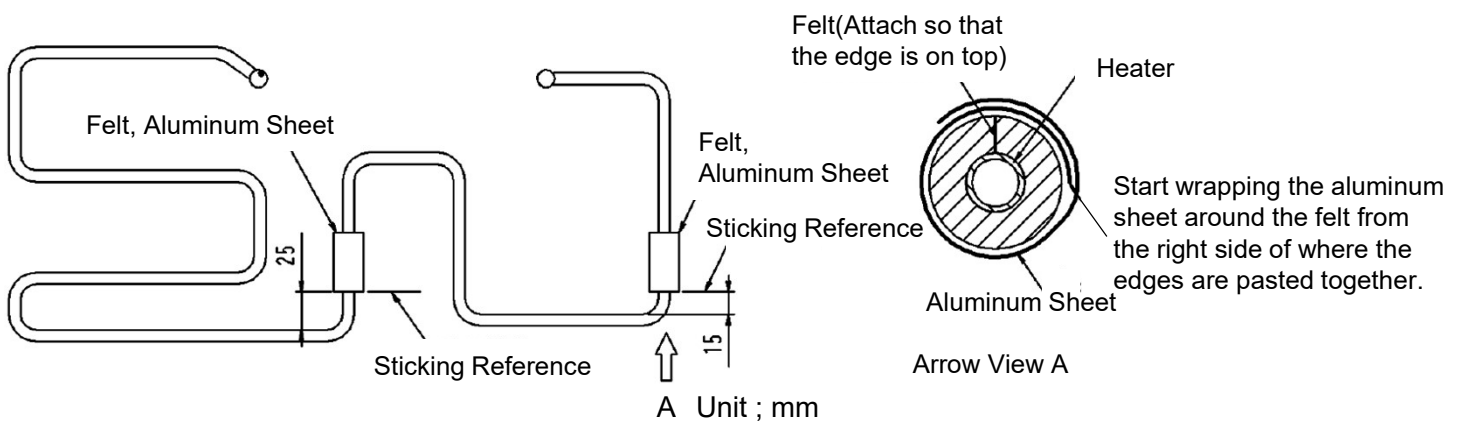
REMOVING OUTDOOR UNIT BODY PARTS

1. Remove screws of front panel (2), and pull the panel downwards to remove to the front (2 screws).
2. Remove the suction grille.
 - Handle the suction grill with care.
3. Remove the screws of the top panel, and lift the panel upwards to remove (8 screws).
4. Remove the screws of front panel (1), and pull the panel upwards to remove to the front (7 screws).
5. Remove the fan lock nuts, and remove the fan to the front.
 - Store removed parts carefully to prevent them from being damaged and take care not to lose lock nut.

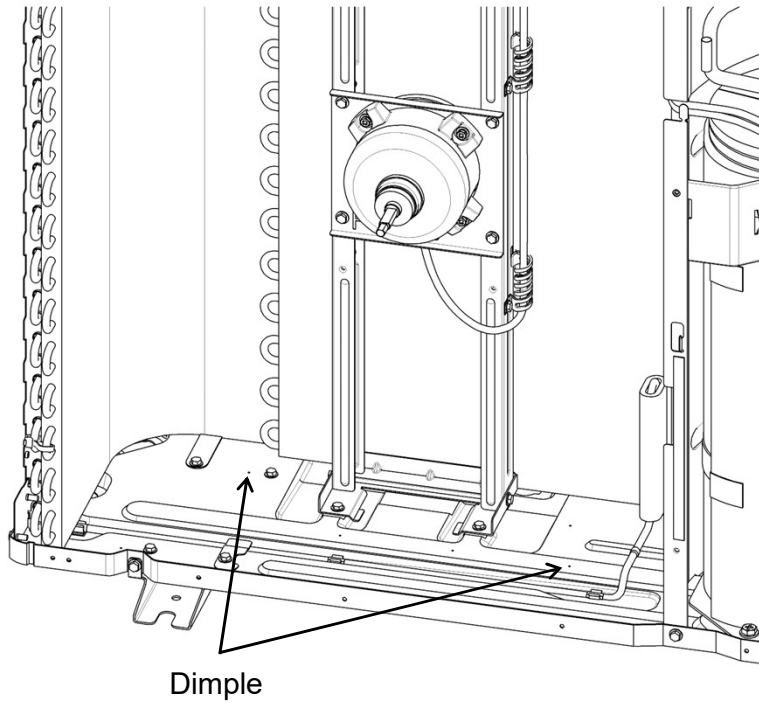


INSTALLING DRAIN PAN HEATER

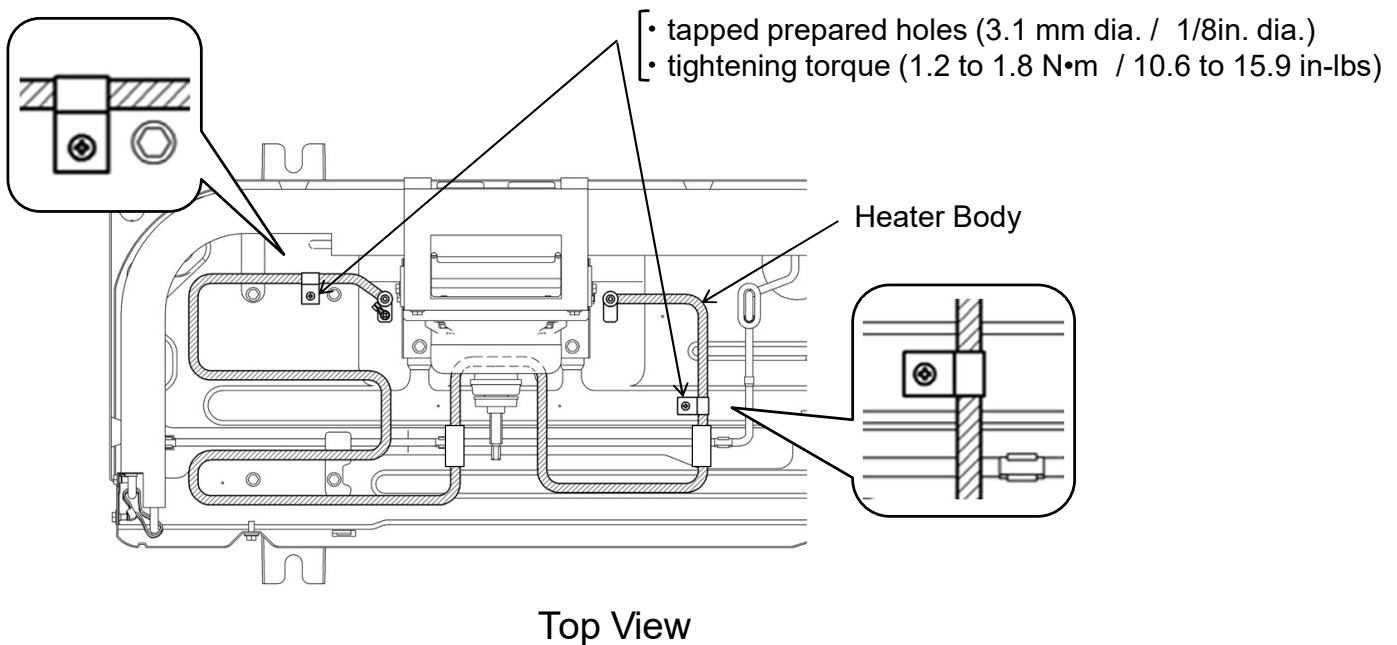
1. Attach the felt and aluminum sheet to the heater as shown below.



2. Install the drain pan heater as referenced in the below picture. The drain pan heater should be installed so that it firmly adheres to the bottom frame.
3. Install the Heater fixture in accordance with dimple.

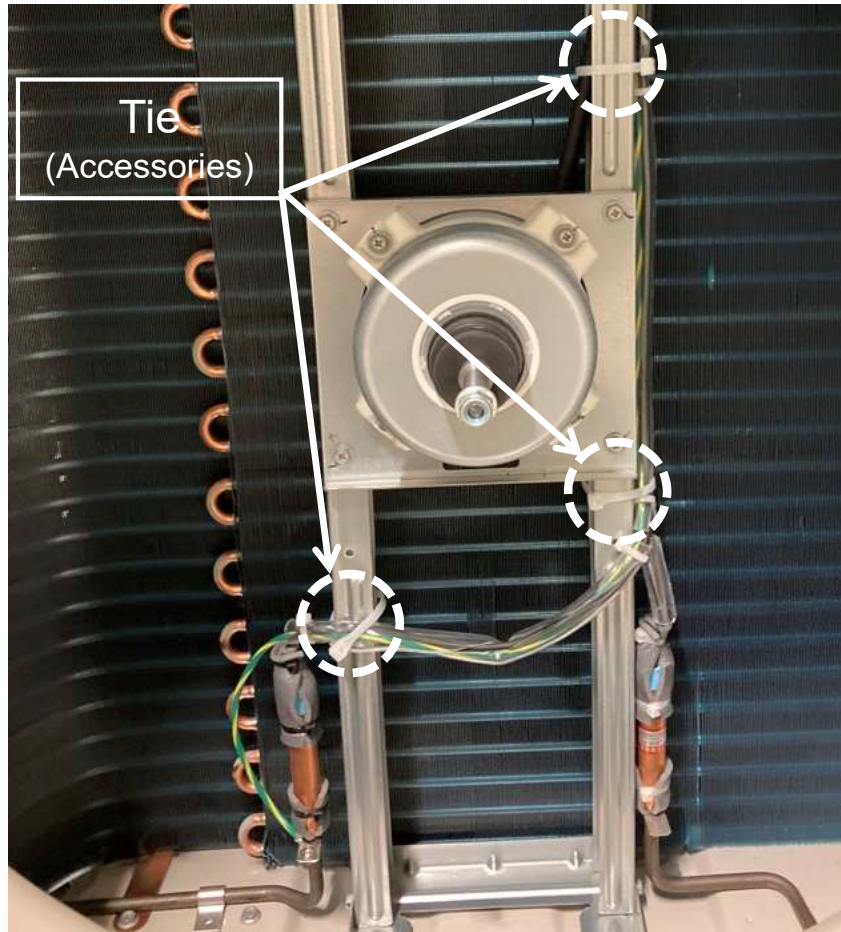


4. Align with the position of the heater fixture hole, and drill two tapped prepared holes (3.1 mm dia. / 1/8in. dia.) for installing the heater fixtures on the bottom plate.
5. Secure the drain pan heater in place with the heater fixture and included screws. (tightening torque 1.2 to 1.8 N•m / 10.6 to 15.9 in-lbs)
 - Secure the drain pan heater firmly.



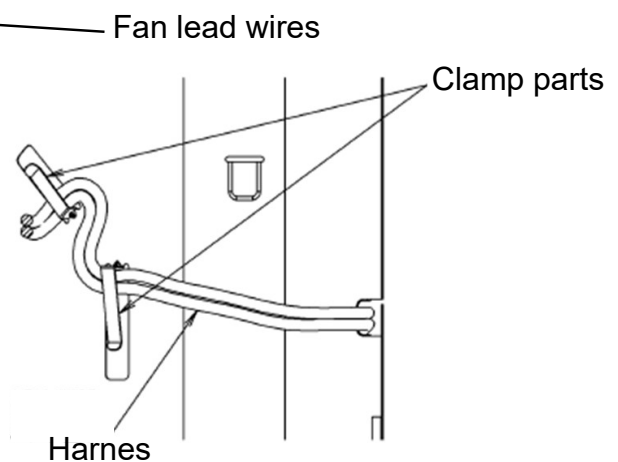
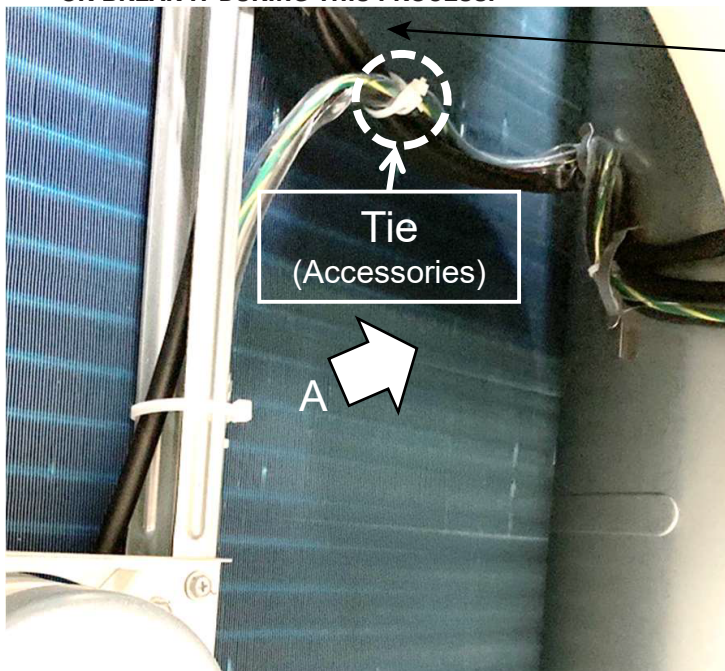
ELECTRIC WIRING WORK

1. Secure heater harness (lead wire, ground wire and protective tube) to the fan motor stand in three places with the ties according to the image below.
 - Prevent the heater harness (lead wire, ground wire and protective tube) from coming into contact with the propeller fan.



2. Secure heater harness to the fan lead wires using the ties as shown in the image below. After mounting the fan lead wires and heater harness press the clamp sections of the partition plate to fix the lead wire in place.

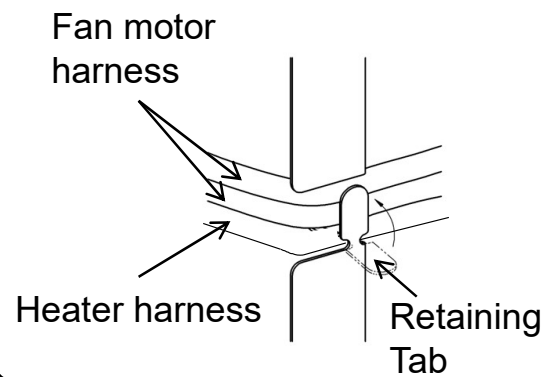
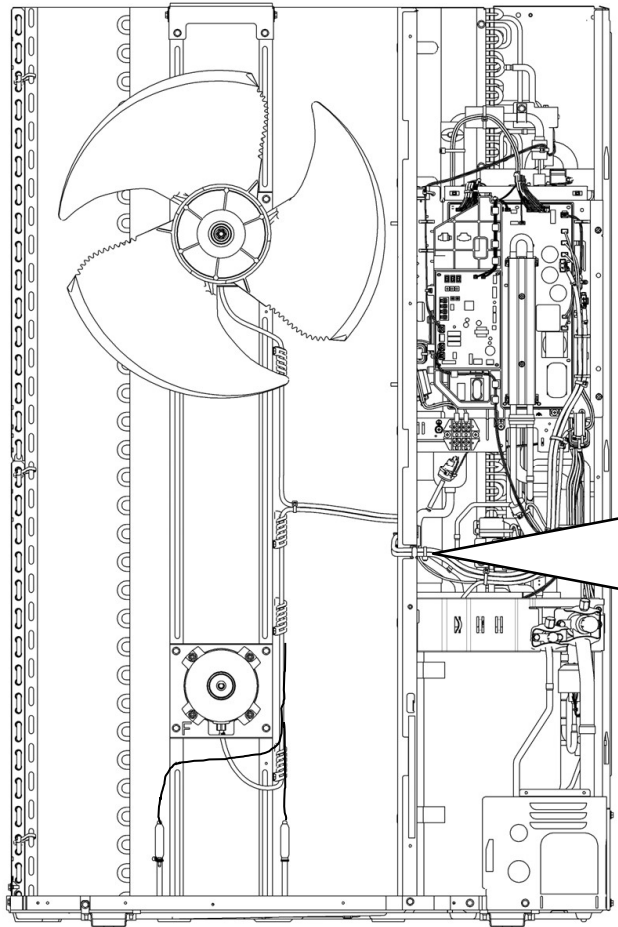
NOTE: ENSURE THAT THE SEAL ON THE REVERSE SIDE OF THE PARTITION PLATE REMAINS INTACT. DO NOT DAMAGE OR BREAK IT DURING THIS PROCESS.



Arrow view A

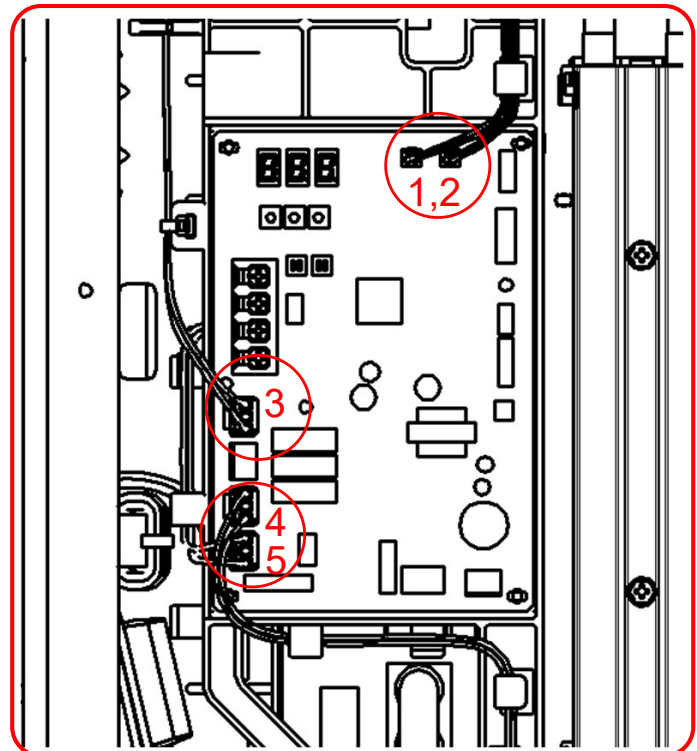
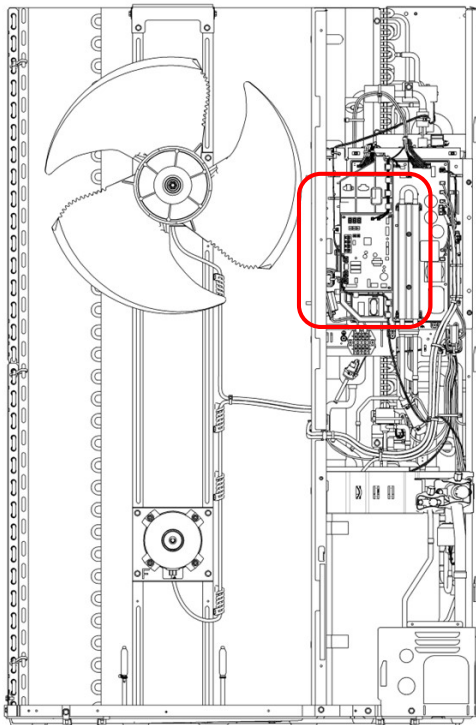
Do not sag the lead wire to avoid touching fan and heat exchanger fin.

3. Fit the fan motor lead wire and the drain pan heater firmly into the groove.

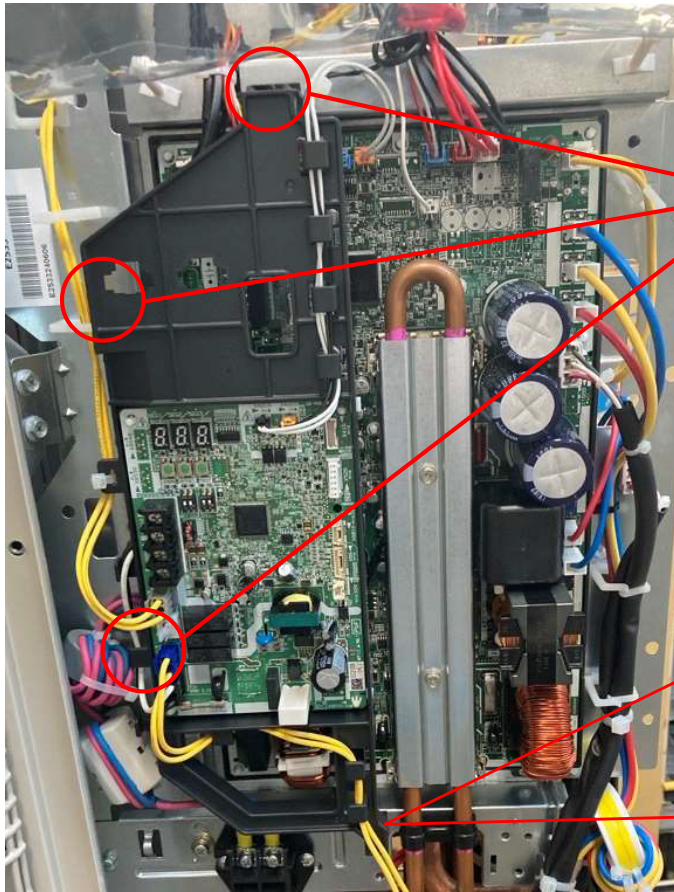


Note : This will require bending down the retaining tab to add drain pan heater wire, and then bending the retaining tab back into place.

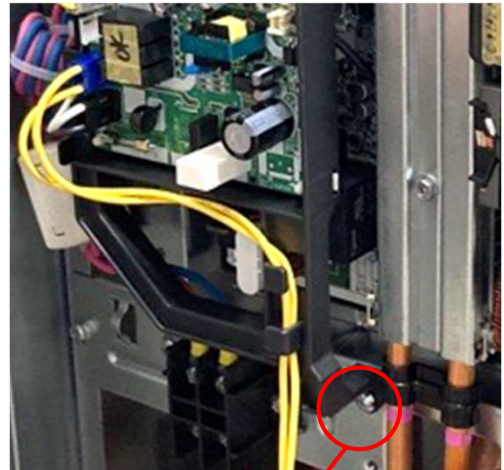
4. Unplug the connector shown in the figure below (5 places).



5. Cut and remove the tie (1 place).
Remove the black PCB mounting plate (1 screw and 3 hooks).

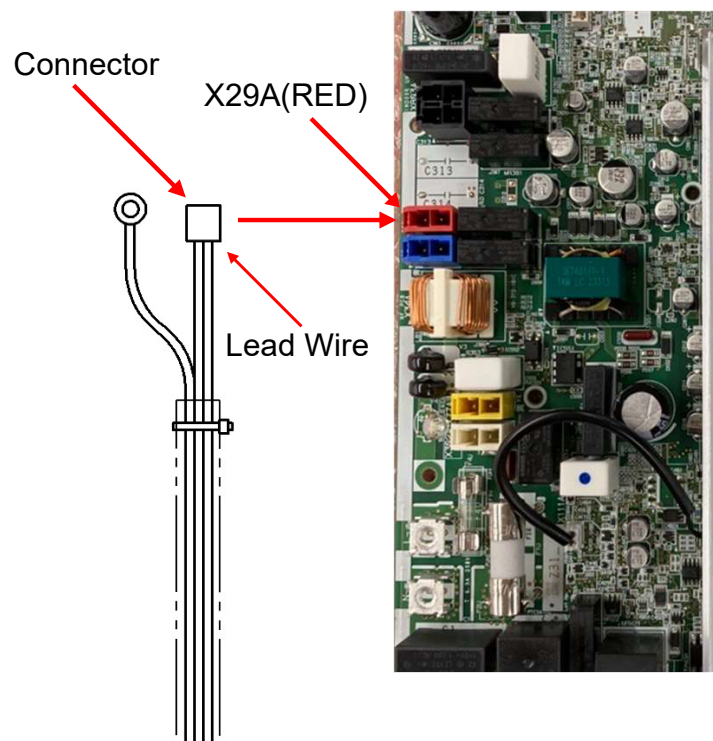


Hook



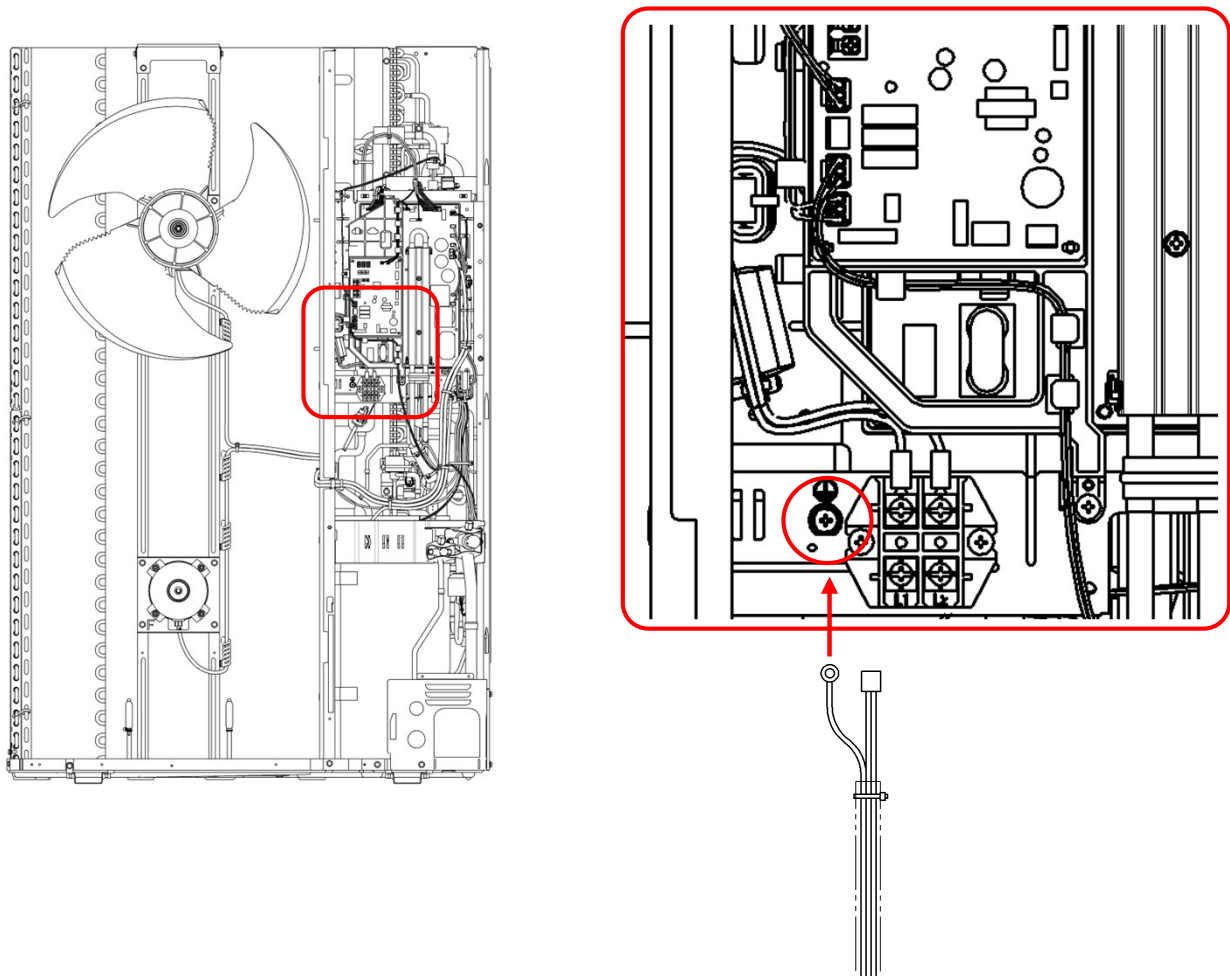
Screw

6. Connect the connector of lead wire to the PCB(X29A).

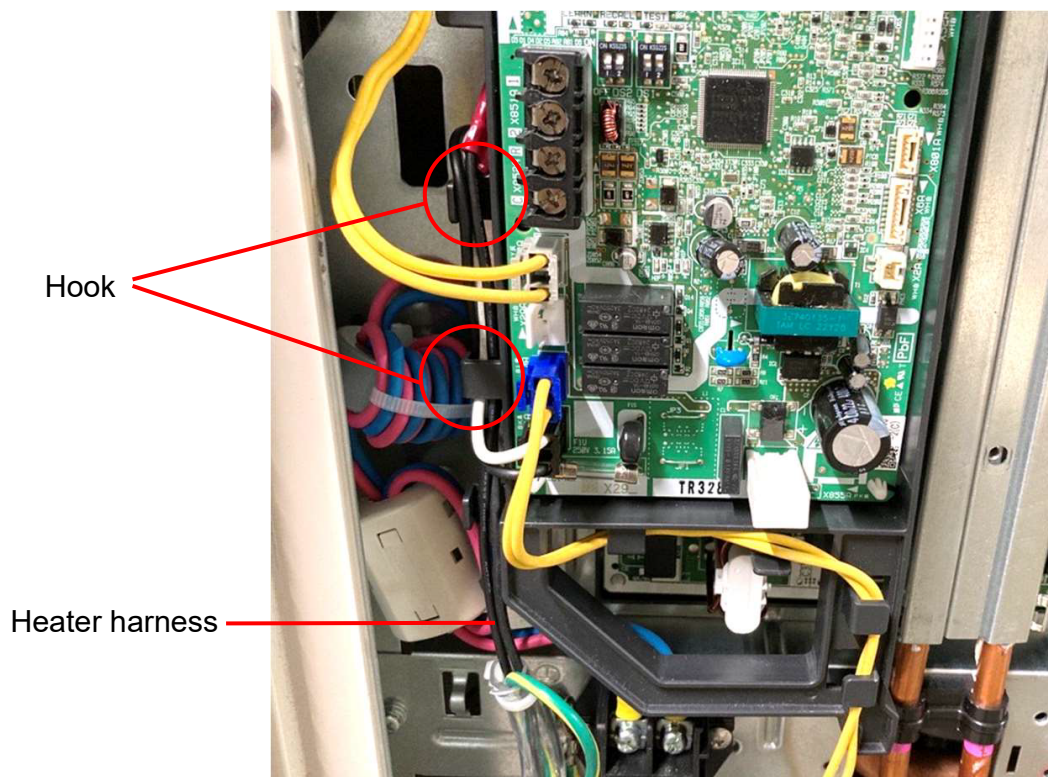


7. Reassemble the black PCB mounting plate and re-connect the connectors (5 Places).
Re-tie the tie at the same location where it was removed in step 5.

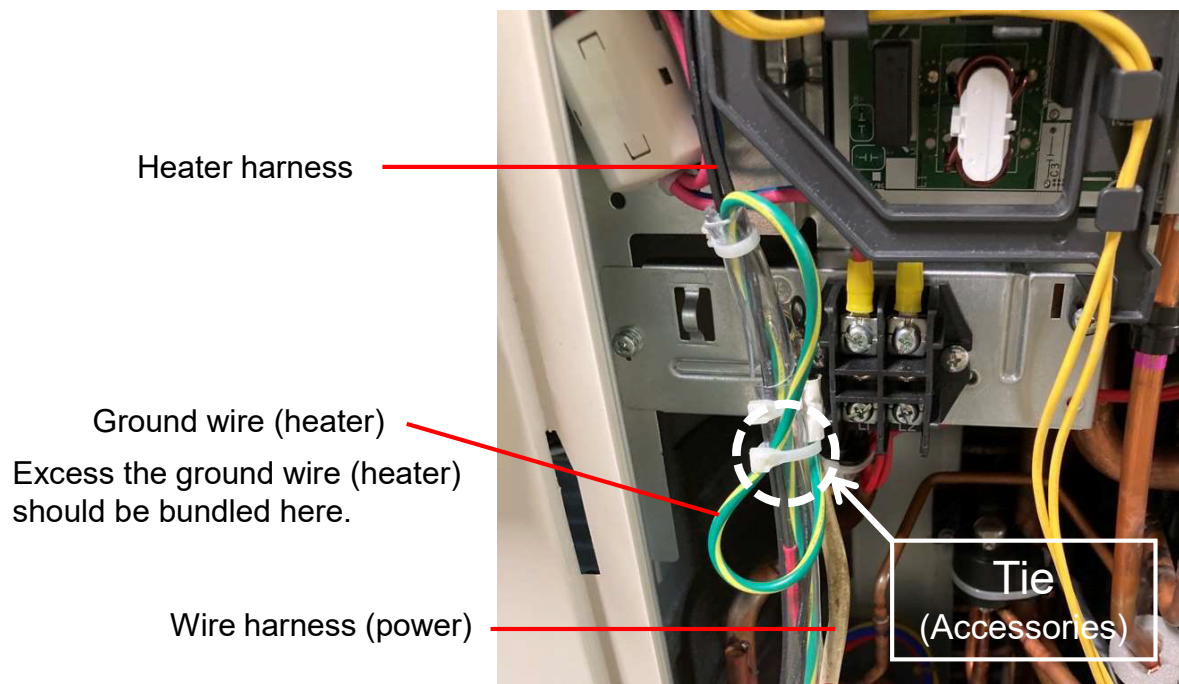
8. Attach the ground wire to the terminal block mounting plate.



9. Pass the drain pan heater harness through the hook on the black PCB mounting plate.



10. Tie the heater harness and wire harness (power).



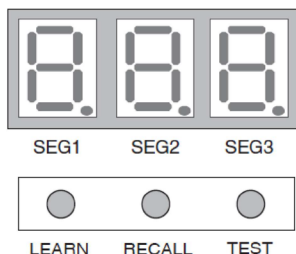
SETTING OF THE DRAIN PAN HEATER TEMPERATURE

If the system needs to have drain pan heater operation more frequently, the outside air temperature at which the drain pan heater begins to operate can be changed.

User can change the setting of the drain pan heater temperature by manipulating the 3-digit display.

The display buttons shown can be used to navigate and select items.

Detailed operating instructions are provided in the installation manual of outdoor unit.



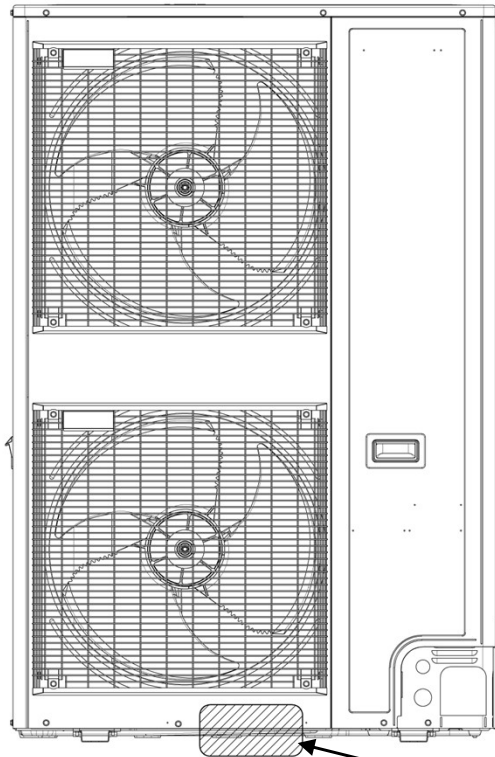
Setting Mode 2 allows the user to change the drain pan heater temperature.
See the table below.

Setting No.	Contents	Settings	Notes
24	Drain pan heater temperature	<u>0: 5F</u> 1: 30F 4: 5F 2: 38F 5: 30F 3: Always OFF 6: 38F	(Setting # : 0-2) Drain pan heater will turn on only while heating mode and compressor is running. (Setting # : 3) Drain pan heater will never turn on. (Setting # : 4-6) Drain pan heater will turn on regardless cooling / heating or compressor status.

NOTE: PARAMETERS AS PER FACTORY SETTING ARE HIGHLIGHTED IN BOLD AND UNDERLINED.

TEST RUN

1. Check that the electric wiring is correctly connected.
2. Before turning the electric heater ON, check that the insulation resistance value is 1 MΩ or more.
 - Measure the insulation resistance value across the electric heater connection connector and the electric heater ground connection terminal with a 500 VDC insulation resistance meter.
3. Install the fan with the lock nut (tightening torque 5.4 to 6.4N•m [47.8 – 56.6 in-lbs]).
4. Referring to “3 Removing Outdoor Unit Body Part,” install the frame and top.
5. Turn the power ON, and touch the bottom frame of the outdoor unit (shaded area in the illustration below) from the bottom to check that the drain pan heats up.
 - Power is not supplied to the heater depending on the outside temperature and other conditions.



Heater temperature check part

THIS PAGE LEFT INTENTIONALLY BLANK

THIS PAGE LEFT INTENTIONALLY BLANK

THIS PAGE LEFT INTENTIONALLY BLANK

CUSTOMER FEEDBACK

Daikin Comfort Technologies is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



Our continuing commitment to quality products may mean a change in specifications without notice.

© 2024 **DAIKIN COMFORT TECHNOLOGIES MANUFACTURING, L.P.**

19001 Kermier Rd. Waller, TX 77484

www.daikincomfort.com