

INSTALLATION MANUAL

AIR CONDITIONER

- Please read this installation manual completely before installing the product.
- Installation work must be performed in accordance with the national wiring standards by authorized personnel only.
- Please retain this installation manual for future reference after reading it thoroughly.

TYPE : AHU EEV Kit

Model : PRLK096A0



P/NO : MFL50024803

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Safety Precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instruction will cause harm or damage. The seriousness is classified by the following indications.



WARNING

This symbol indicates the possibility of death or serious injury.



CAUTION

This symbol indicates the possibility of injury or damage.

■ Meanings of symbols used in this manual are as shown below.



Be sure not to do.



Be sure to follow the instruction.



WARNING

■ Installation

Don't touch with the hands while the power is on

- There is risk of fire or electric shock.

Use standard parts(connector).

- Do not disassemble or repair the product. There is risk of fire or electric shock.

For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

- Do not disassemble or repair the product. There is risk of fire or electric shock.

Use the correctly rated breaker or fuse.

- There is risk of fire or electric shock.

Do not install, remove, or re-install the unit by yourself (customer).

- There is risk of fire, electric shock, explosion, or injury.

For installation, always contact the dealer or an Authorized Service Center.

- There is risk of fire, electric shock, explosion, or injury.

■ Operation

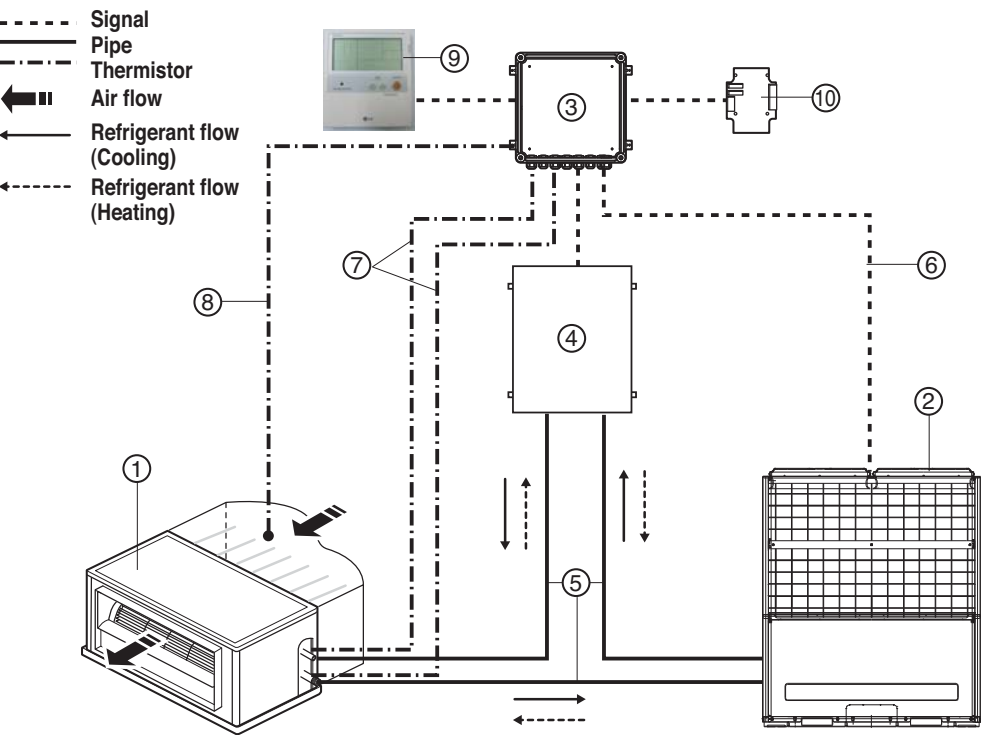
When the product is soaked (flooded or submerged), contact an Authorized Service Center.

- There is risk of fire or electric shock.

Be cautious that water could not enter the product.

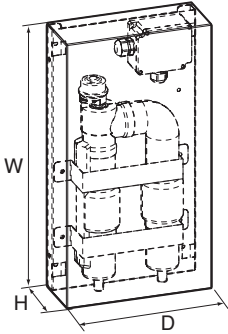

- There is risk of fire, electric shock, or product damage.

Installation Scene



Parts and components		
No.	Name	Remarks
1	Air Handling Unit	Field supply
2	Outdoor Unit	Multi_V
3	AHU Control Kit(PRCKA0)	-
4	AHU EEV Kit(PRLK096A0)	-
5	Field piping	Field supply
Wiring connections		
6	Control kit wiring	(Power supply and communication between control kit and outdoor unit)
7	Pipe thermistors (EBG61287703 / BG61287704)	Evaporator (In/Out) control of Air Handling Unit
8	Room thermistor (EBG36949303)	Return air control
9	Remote controller(PQRCUSA0)	Optional accessory
10	Dry contact PCB(PQDSBNGCM0)	Optional accessory

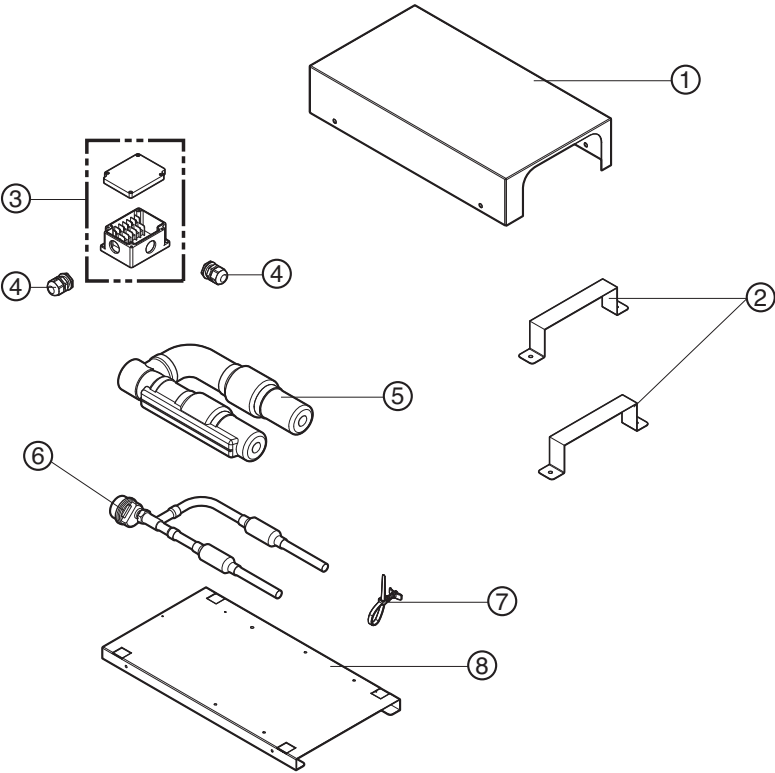
Supplies

PRLK096A0		
Components	AHU EEV Kit	Installation manual
P/NO	AJT57850802	MFL50024803
Shape		
Quantity(EA)	1	1

Model Name	Weight(kg)		Dimension(mm)			POWER
	NET	Gross	W	H	D	
PRLK096A0	3.1	3.6	404	83	217	-

Part Description

EEV Kit(PRLK096A0)

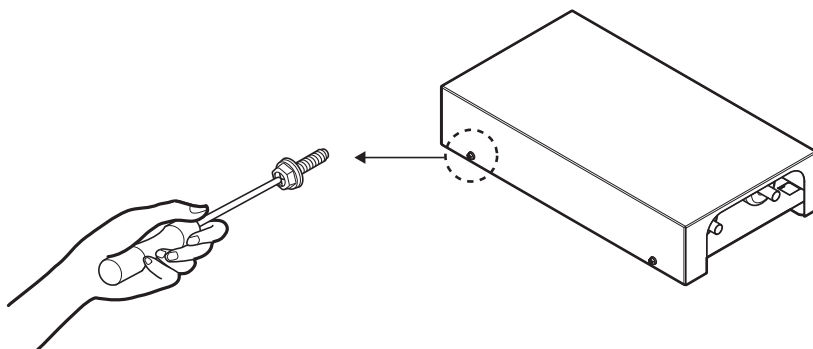


No.	Part Name	Quantity(EA)
1	Panel upper	1
2	Bracket	2
3	Terminal box	1
4	Cable gland	2
5	Insulator tube	1
6	EEV assembly (EEV, Strainer, Tube)	1
7	Support tie wrap	1
8	Panel base	1

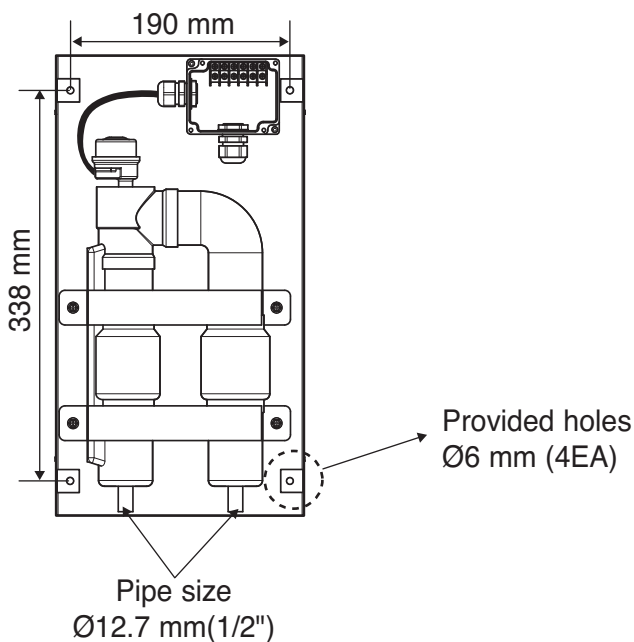
EEV Kit Installation

Mechanical installation

1. Remove the EEV Kit box cover by unscrewing the screw(4EA).

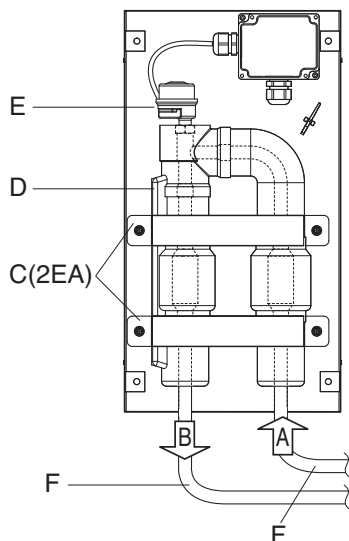


2. Drill 4 holes on correct position and fix the EEV Kit box securely with 4 screws(Field supply) through the provided holes Ø6 mm(Reference the length of the holes Ø6)



Mechanical installation

3. Prepare the inlet/outlet field piping just in front of the connection(do not braze yet).
4. Remove the pipe fixing bracket(C) by unscrewing 4 x M4.
5. Remove the Pipe insulation.
6. Braze the field piping.



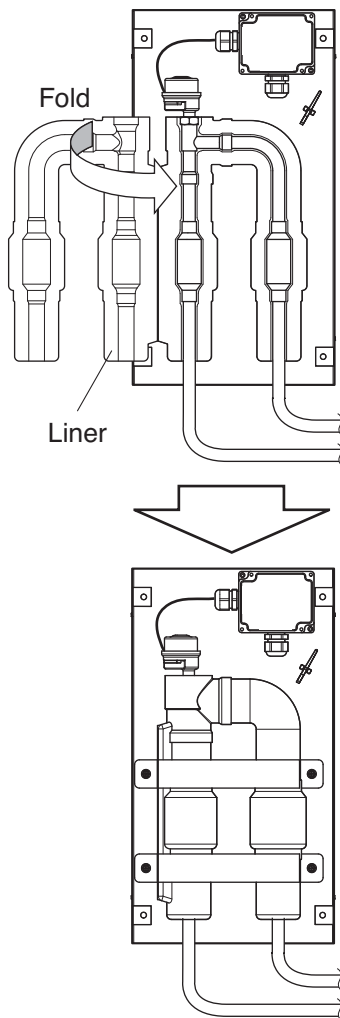
- A. Inlet coming from the outdoor unit
- B. Outlet to evaporator
- C. Pipe fixing bracket(2EA)
- D. Pipe insulation
- E. EEV Assembly
- F. Field pipe(Inlet / Outlet)

⚠ CAUTION

- Make sure to cool the filters and EEV body with a wet cloth and make sure the body temperature does not exceed 120°C during brazing.
- Make sure that the other parts such as electrical box, tie wraps and wires protected from direct brazing flames during brazing.

Brazing work

7. After brazing, put the Pipe insulation(D) on the EEV Assembly(E) and fold the Pipe insulation(D) mentioned below (after peeling off the liner).
8. Secure the pipe fixing bracket(C:2EA) in place again (4 x M4)

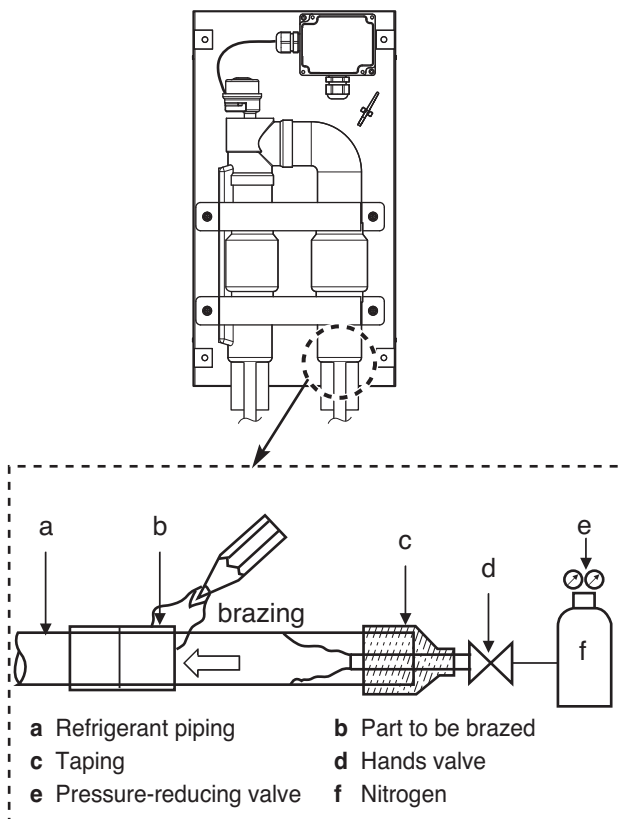


9. Make sure that field pipes are fully insulated.
Field pipe insulation must reach up to the insulation you have put back in place as per procedure step 7. Make sure that there is no gap between both ends in order to avoid condensation dripping (finish the connection with tape eventually).

Brazing work

⚠ CAUTION

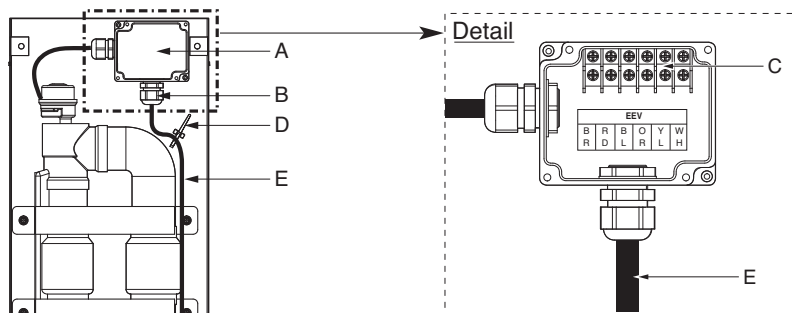
- Be sure to carry out a nitrogen blow when brazing.
Brazing without carrying out nitrogen replacement or releasing nitrogen into the piping will create large quantities of oxidized film on the inside of the pipes, adversely affecting valves and compressors in the refrigerating system and preventing normal operation.
- When brazing while inserting nitrogen into the piping, nitrogen must be set to 0.02 MPa with a pressure-reducing valve (just enough so that it can be felt on the skin).



- The leakage test is executed by pressurizing nitrogen gas up to 3.8MPa(38.7kgf/cm²) (The test must be done with the service valve of the outdoor unit closed and the gas must be pressurized at the liquid pipe, gas pipe and high/low pressure common pipe of the outdoor unit), and the pressure of the nitrogen gas must not drop for 24 hours.
- For more details, refer to the manual of the outdoor unit.

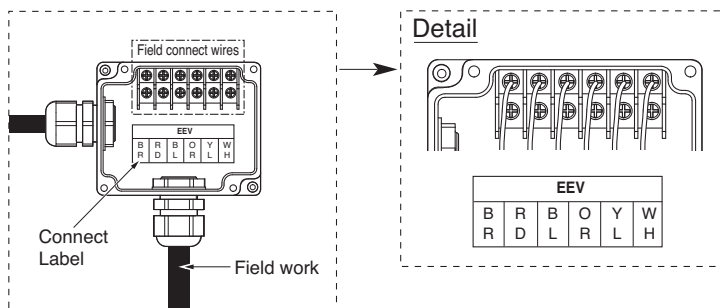
Electrical work

10. Open the terminal box cover(A).
11. Pass EEV cable(Field supply, 6 wires) from the AHU Control Kit through cable gland and connect the cable wires into the terminal connector(C) following instructions as describe in step 12. Route the cable out of the EEV Kit box according to figure below and fix with the support tie wrap(D).



- A. Terminal box cover
 B. Cable gland
 C. Terminal connector
 D. Support tie wrap
 E. Electric wiring work(Field supply, 6 wires)

12. Use a screwdriver(+) and follow indicated instructions for connecting cable wires into the terminal connector according to the circuit diagram.



NOTE

1. BR : BROWN
2. RD : RED
3. BL : BLUE
4. OR : ORANGE
5. YL : YELLOW
6. WH : WHITE

CAUTION

- Before connecting the wires(Field supply), make sure to compare with the Connect label between EEV Kit and Control Kit.
- Make sure to connect the wires according to the circuit diagram in Control Kit.

13. Make sure that field wiring and insulation is not squeezed when closing the EEV Kit box cover.
14. Close the EEV Kit box cover(4 x M4).

Thermistors Installation

Pipe thermistors Installation

Location of the pipe thermistors

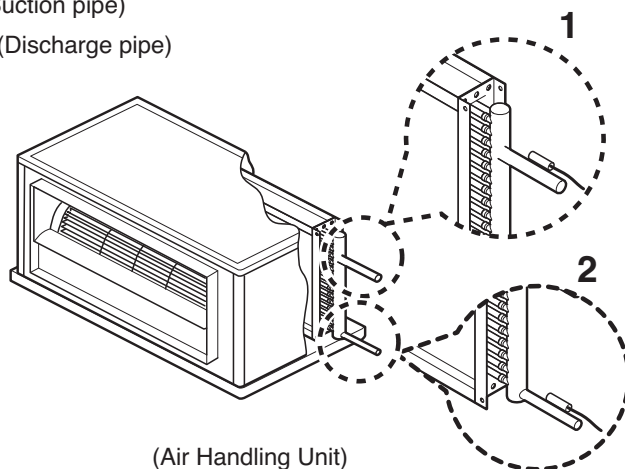
A correct installation of the thermistors is required to ensure a good operation :

1. Pipe_In (EBG61287703)
: Install the thermistor behind the distributor on the coldest pass the heat exchanger (contact your heat exchanger dealer).
2. Pipe_Out (EBG61287704)
: Install the thermistor at the outlet of the heat exchanger as close as possible to the heat exchanger.

Evaluation must be done to check if the evaporator is protected against freeze-up.

Execute test operation and check for freeze-up.

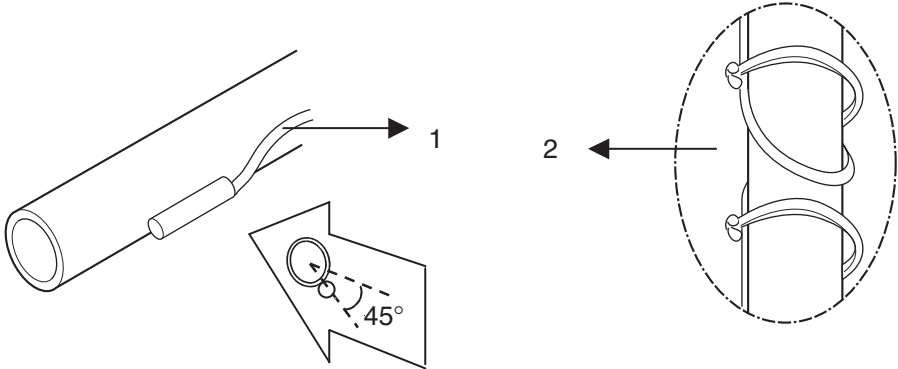
- 1 Pipe_In(Suction pipe)
- 2 Pipe_Out(Discharge pipe)



Pipe thermistors Installation

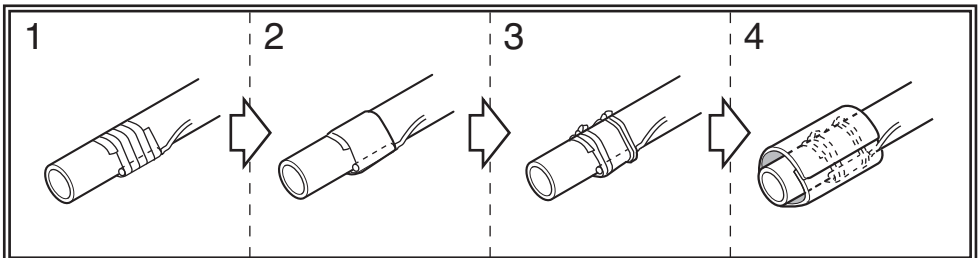
Installation of the pipe thermistor cable

1. Put the thermistor cable in a separate protective tube.
2. Always add a pull-relief to the thermistor cable to avoid strain on the thermistor cable and loosening of the thermistor. Strain on the thermistor cable or loosening of the thermistor may result in bad contact and incorrect temperature measurement.



Fixation of the pipe thermistors (Field work)

1. Fix the thermistor with insulating aluminum tape (Field supply) in order to ensure a good heat transference.
2. Put the supplied piece of rubber around the thermistor (EBG61287703/04) in order to avoid loosening of the thermistor after some years.
3. Fasten the thermistor with 2 tie wraps.
4. Insulate the thermistor with the supplied insulation sheet.



Pipe thermistors Installation

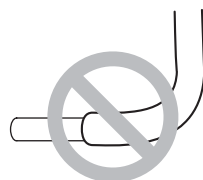
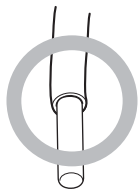
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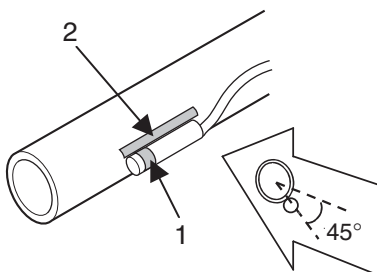


INSTRUCTION

- Put the thermistor wire slightly top to avoid water accumulation on down of the thermistor.



- Make good between thermistor and evaporator. Put the top of the thermistors on the evaporator, this is the most sensitive point of the thermistor.



- 1 Most sensitive point of the thermistor
- 2 Maximize the contact

Troubleshooting

Problem	Cause	Remedy
AHU EEV Kit does not work	Wiring is wrong	Check the electrical connection of the EEV Kit
	Piping is wrong	Check the piping connection between the EEV Kit and outdoor unit

