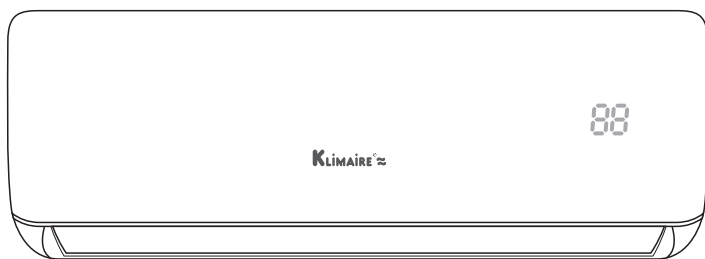


SPLIT-TYPE ROOM AIR CONDITIONER

KSIA 17 SEER SERIES

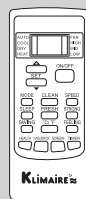
INSTALLATION MANUAL



KLIMAIRE®

IMPORTANT NOTE:

Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.



Notices for installation

❶ Important Notices

- Before installing, please contact with local authorized maintenance center, if unit is not installed by the authorized maintenance center, the malfunction may not solved, due to discommodious contact.
- The air conditioner must be installed by professionals according to the national wiring rules and this manual.
- To move and install air conditioner to another place, please contact our local special service center.

Requirements For Installation Position

- Avoid places of inflammable or explosive gas leakage or where there are strongly aggressive gases.
- Avoid places subject to strong artificial electric/magnetic fields.
- Avoid places subject to noise and resonance.
- Avoid severe natural conditions (e.g. heavy lampblack, strong sandy wind, direct sunshine or high temperature heat sources).
- Avoid places within the reach of children.
- Shorten the connection between the indoor and outdoor units.
- Select where it is easy to perform service and repair and where the ventilation good.
- The outdoor unit shall not be installed in any way that could occupy an aisle, stairway, exit, fire escape, catwalk or any other public area.
- The outdoor unit shall be installed as far as possible from the doors and windows of the neighbors as well as the green plants.

Requirements of the mounting structure

- The mounting rack must meet the relevant national or industrial standards in terms of strength with welding and connection areas rustproofed.
- The mounting rack and its load carry surface shall be able to withstand 4 times or above the weight of the unit, or 440.9lbs whichever is heavier.
- The mounting rack of the outdoor unit shall be fastened with expansion bolt.
- Ensure the secure installation regardless of what type of wall on which it is installed, to prevent potential dropping that could hurt people.

Notices for installation

Electrical Safety Requirements

- Be sure to use the rated voltage and air conditioners dedicated circuit for the power supply, and the power cord diameter must meet the national requirements.
- When the maximum current of air conditioner is $\geq 16A$, it must use the air switch or leakage protection switch equipped with protection devices.
- The normal operating range is 90%-110% of the local rated voltage.
- The minimum clearance between the air conditioner and the combustibles is 4.5ft.
- The Interconnection cord connect the indoor and outdoor units. You must first choose the right cable size before preparing it for connection.
- Cable Types:
Outdoor Power Cable: H07RN-F or H05RN-F;
Interconnection cord: H07RN-F or H05RN-F;
- Minimum Cross-Sectional Area of Power Cable and interconnection cord

North America

Appliance Amps(A)	AWG
10	18
13	16
18	14
25	12
30	10
40	8

Other Regions

Rated Current of Appliance(A)	Nominal Cross-Sectional Area(in ²)
>3 and ≤ 6	0.000116
>6 and ≤ 10	0.001550
>10 and ≤ 16	0.002325
>16 and ≤ 25	0.003875
>25 and ≤ 32	0.006200
>32 and ≤ 40	0.009300

- The size of the interconnection cord, power cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit. Refer to this nameplate to choose the right cable, fuse, or switch.
- Note: Core number of cable refer to the detailed wiring diagram adhered on the unit which you purchased.

Notices for installation

Requirements for operations at raised height

- When carrying out installation at 6.6ft or higher above the base level, safety belts must be worn and ropes of sufficient strength be securely fasten to the outdoor unit, to prevent falling that could cause personal injury or death as well as property loss.

Grounding Requirements

- The air conditioner is the type I electrical appliance and must ensure a reliable grounding.
- Do not connect the grounding wire to a gas pipe, water pipe, lightning rod, telephone line, or a circuit poorly grounded to the earth.
- The grounding wire is specially designed and shall not be used for other purpose, nor shall it be fastened with a common tapping screw.

Others

- The connection method of the air conditioner and the power cord and the interconnection method of each independent element shall be subject to the wiring diagram affixed to the machine.
- The model and rating value of the fuse shall be subject to the silkscreen on corresponding controller or fuse sleeve.

Packing list

Packing list of the indoor unit

Name	Quantity	Unit
Indoor Unit	1	Set
Remote Controller	1	PC
Batteries (7#)	2	PC
Instructions	1	Set
Drain pipe	1	PC

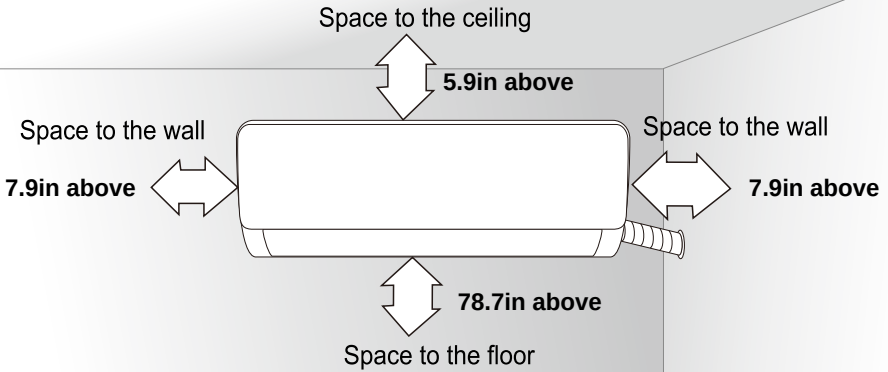
Packing list of the outdoor unit

Name	Quantity	Unit
Outdoor Unit	1	Set
Plastic Strap	1	ROLL
Pipe Protection Ring	1	PC
Luting (putty)	1	PACKET

NOTE: All accessories shall be subject to actual packaging material, and if there is any difference, please understand.

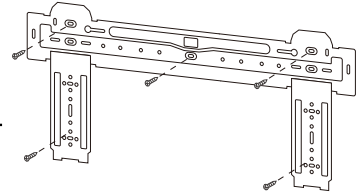
Install indoor unit

Dimension drawing of indoor unit installation



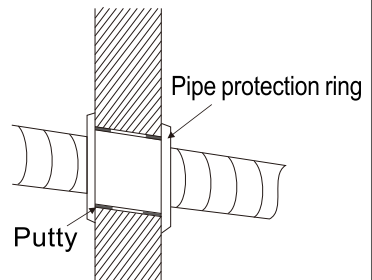
Mounting plate

1. The wall for installation of the indoor unit shall be hard and firm, so as to prevent vibration.
2. Use the "+" type screw to fasten the peg board, horizontally mount the peg board on the wall, and ensure the lateral horizontal and longitudinal vertical.
3. Pull the peg board by hand after the installation, to confirm whether it is solid.



Wall-through Hole

1. Make a hole with an electric hammer or a water drill at the predetermined position on the wall for piping, which shall slant outwardly by 41°F - 50°F.
2. To protect the piping and the cables from being damaged running through the wall, and from the rodents that may inhabit in the hollow wall, a pipe protecting ring shall be installed and sealed with putty.



Note: Usually, the wall hole is $\varnothing 2.36\text{in} \sim \varnothing 3.15\text{in}$
Avoid pre-buried power wire and hard wall
when making the hole.

Install indoor unit

Route of Pipeline

1. Depending on the position of the unit, the piping may be routed sideway from the left or the right (Fig 1), or vertically from the back(Fig 2)(depending on the pipe length of the indoor unit). In the case of sideway routing, cut off the outlet cutting stock of the opposite side.

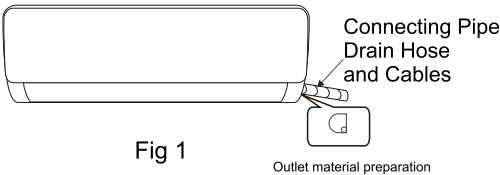


Fig 1

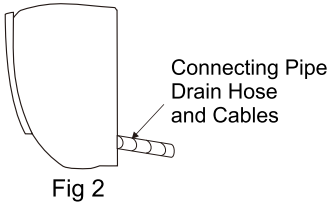


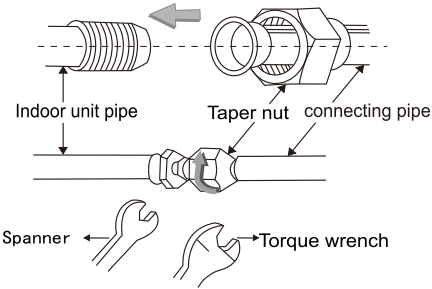
Fig 2

Drain pipe connection

1. Remove the mountings and pull the indoor unit pipe out of the housing.
2. Connect the connecting pipe to the indoor unit:
Aim at the pipe center, tighten the Taper nut with fingers, and then tighten the Taper nut with a torque wrench, and the direction is shown in diagram on the right. The torque used is shown in the following table.

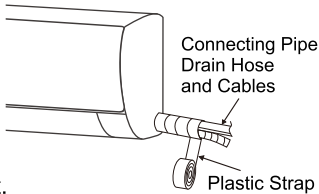
Tightening torque table

The size of pipe(inch)	Torque (lbf *ft)
(1/4)	11,06 ~ 18,44
(3/8)	25,81 ~ 29,50
(1/2)	33,19 ~ 44,25
(5/8)	53,84 ~ 57,53
(3/4)	55,32 ~ 59,00



Wrap the Piping

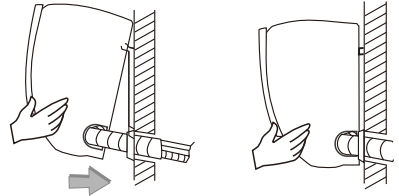
1. Use the insulation sleeve to wrap the joint part the indoor unit and the connection pipe, and then use insulating material to pack and seal insulation pipe, to prevent generation of condensate water on the joint part.
2. Connect the water outlet with drain pipes, and make the connection pipe, cables, and the drain hose straight.
3. Use plastic cable ties to wrap the connecting pipes, cables and drain hose. Run the pipe sloping downward.



Install Indoor Unit

Fixing the Indoor Unit

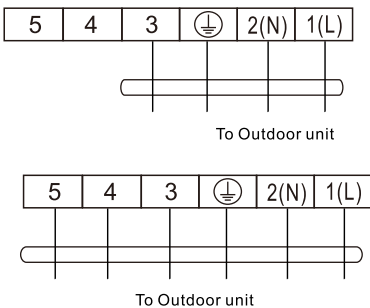
1. Hang the indoor unit on the peg board, and move the unit from left to right to ensure that the hook is properly positioned in the peg board.
2. Push toward the lower left side and the upper right side of the unit toward the peg board, until the hook is embedded in the slot and makes a "click" sound.



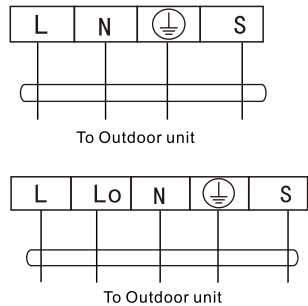
Wiring diagram

- If your air conditioner is provided with interconnection cord, the wiring of the indoor unit is connected in the factory, there is no need of connection.
- If the interconnection cord is not provided, connection is needed in accordance with the wiring diagram.

Constant speed



Variable speed



Connector



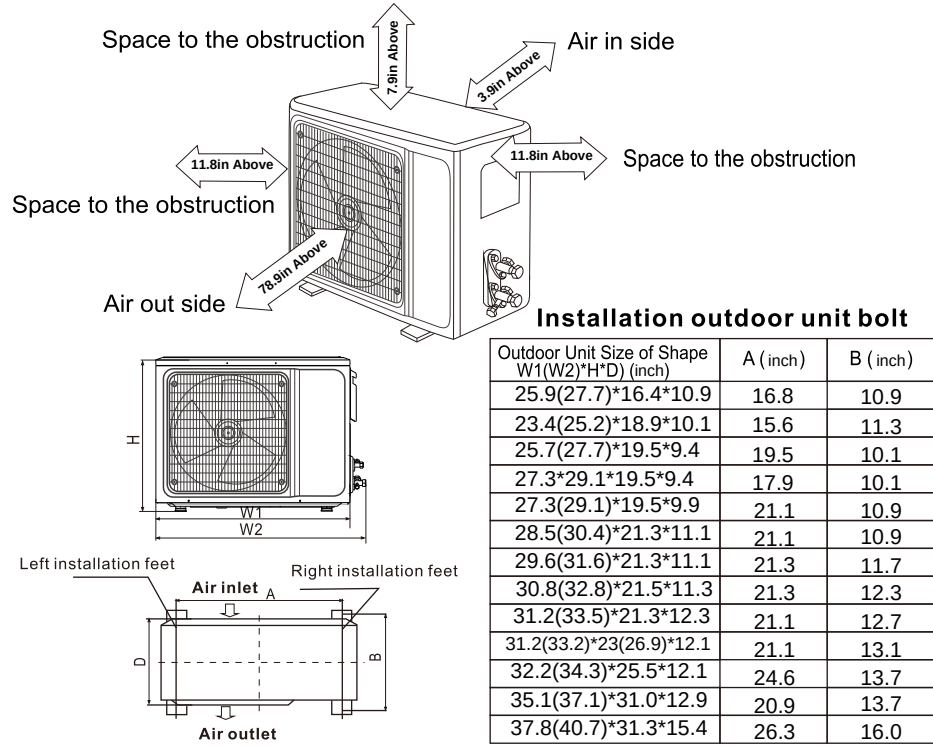
If there is a connector,
connect it directly.

NOTE:

- ※ This manual usually includes the wiring mode for the different kind of A/C. We cannot exclude the possibility that some special type of wiring diagrams are not included.
- ※ The diagram are for reference only. If the entity is difference with this wiring diagram, please refer to the detailed wiring diagram adhered on the unit which you purchased.

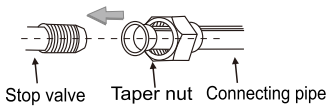
Install outdoor unit

Dimension drawing of outdoor unit installation



Install the connection pipe

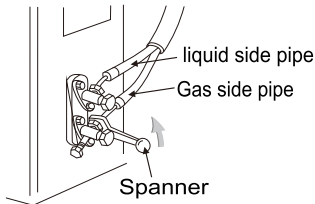
Connect the Outdoor Unit with Connecting Pipe:
Aim the counter-bore of the connecting pipe at the stop valve, and tighten the Taper nut with fingers.
Then tighten the Taper nut with a torque wrench.



★ When prolonging the piping, extra amount of refrigerant must be added so that the operation and performance of the air conditioner will not be compromised.

Piping length	Amount of refrigerant to be added	
≤ 16.4ft	Not needed	
16.4ft - 49.2ft	CC≤12000Btu	0.215oz/ft
	CC≥18000Btu	0.323oz/ft

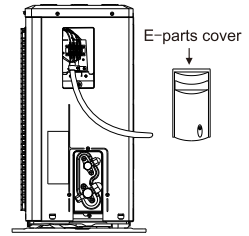
Note: This table is for reference only.



Install outdoor unit

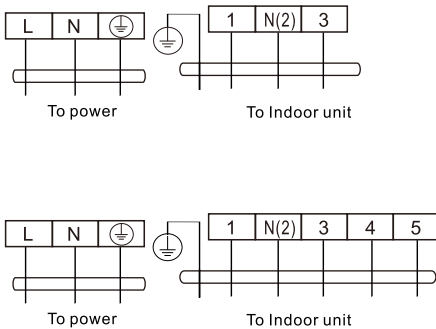
Wiring Connection

1. Loosen the screws and remove E-parts cover from the unit.
2. Connect the cables respectively to the corresponding terminals of the terminal board of the outdoor unit (see the wiring diagram), and if there are signals connected to the plug, just conduct butt joint.
3. Ground wire: Remove the grounding screw out of the electric bracket, cover the grounding wire end onto the grounding screw and screw it into the grounding hole.
4. Fix the cable reliably with fasteners (Pressing board).
5. Put the E-parts cover back in its original place and fasten it with screws.

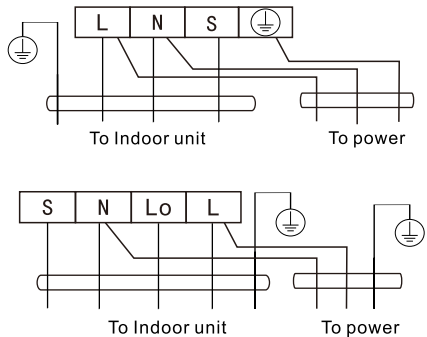


Wiring diagram

Constant speed



Variable speed



Connector



If there is a connector, connect it directly.

NOTE:

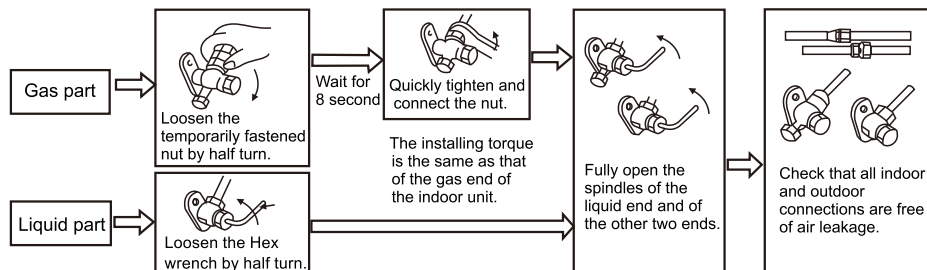
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Install outdoor unit

Expelling the air

★Outdoor unit refrigerant discharging method

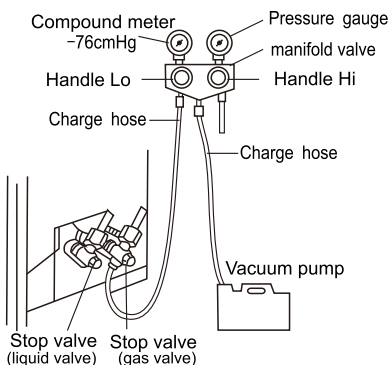
After the pipe side connection is complete, proceed as follows.



★Vacuum Pumping Method (R410A refrigerant evacuation must use the vacuum pumping method)

Before working on the air conditioner, remove the cover of the stop valve(gas and liquid valves)and be sure to retighten it afterward.(to prevent the potential air leakage)

1. To prevent air leakage and spilling tighten all connecting nut of all flare tubes.
2. Connect the stop valve, charge hose, manifold valve, and vacuum pump.
3. Fully open the handle Lo of the manifold valve and apply vacuum for at least 15 minutes and check that the compound vacuum gauge reads -0.1MPa(-76cmHg).
4. After applying vacuum, fully open the stop valve with a hex wrench.
5. Check that both indoor and outdoor connections are free of air leakage.

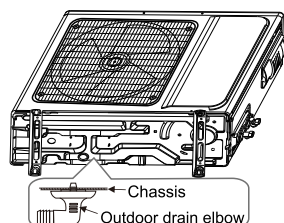


Outdoor condensation drainage(Heat pump type only)

When the unit is heating, the condensing water and defrosting water can be out reliably through the drain house.

Installation:

Install the outdoor drain elbow in $\Phi 25$ hole on the base plate, and joint the drain hose to the elbow, so that the waste water formed in the outdoor unit can be drained out to a proper plate.



Check after installation and test operation

Check after installation

★ Electrical Safety Check

1. If the supply voltage is as required.
2. If there is any faulty or miss connection in each of the power, signal and grounding wires.
3. If the grounding wire of the air conditioner is securely grounded.

★ Installation Safety Check

1. If the installation is secure.
2. If the water drain is smooth.
3. If the wiring and piping are correctly installed.
4. Check that no foreign matter or tools are left inside the unit.

★ Leak test of the refrigerant

Depending on the installation method, the following methods may be used to check for suspect leak, on areas such as the four connections of the outdoor unit and the cores of the cut-off valves and t-valves:

1. Bubble method: Apply of spray a uniform layer of soap water over the suspected leak spot and observe carefully for bubble.
2. Instrument method: Checking for leak by pointing the probe of the leak detector according to the instruction to the suspect points of leak.

Test Operation

Test Operation preparation:

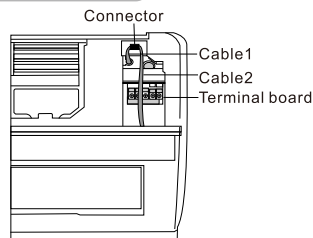
- ※Verify that all piping and connection cables are well connected.
- ※Confirm that the valves at the gas side the liquid-side are fully open.
- ※Connect the power cord to an independent power socket.
- ※Install batteries in remote control.

Test Operation method:

1. Turn on the power and push the ON/OFF switch button of the remote controller to start the air conditioner.
2. Select COOL, HEAT (not available on cool-only models), SWING and other operation modes with the remote controller and see if the operation is ok.

Specific caution

1. Open front panel of the indoor.
2. The connector(as Fig) can not touch the terminal board, and is positioned as shown in Fig.





2190 NW 89 Place, Doral, FL 33172 - USA

Tel: (305) 594 - 4972 Fax (305) 675-2212
www.klimaïre.com sales@klimaïre.com

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