HITACHI
RAK-QJ18PCBST Split Unit Air Conditioner

HITACHI RAK-QJ18PCBST Split Unit Air Conditioner Installation Guide

Contents

HITACHI

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Specifications:

- **Indoor Unit Model:** RAK-QJ18PCBST
- **Outdoor Unit Model:** RAC-QJ18PCBST
- **Refrigerant:** R32
- **Recommended Installation:** For service personnel only

Product Usage Instructions

Tools Needed for Installation Work:

- Knife
- Saw
- Pipe Cutter
- Hexagonal Wrench Key (4mm)
- Power Drill
- Pliers or Wrench
- Torque Wrench
- Vacuum Pump Adaptor
- Flare Tool
- Gas Leakage Detector
- Manifold Valve
- Charge Hose

Installation Instructions:

1. Carefully read through the procedures of proper installation before starting installation work.
2. The sales agent should inform customers regarding the correct operation of installation.
3. Use a torque wrench to tighten flare nuts with specified tightening torque to avoid gas leakage.
4. Avoid sharp bending of pipes, use a polyethylene rod for bending.
5. Request a sales agent or qualified technician to install the unit to prevent water leakage, short circuit, or fire.
6. Mount units at locations providing full support to avoid collapse and danger.
7. Ensure smooth water flow during drain hose installation and provide suitable support for piping with a maximum spacing of 1m between supports.
8. Use specified components for installation work to prevent collapse, water leakage, electric shock, and fire.
9. Use the specified piping set for R32 to avoid broken copper pipes or faults.
10. Only use specified refrigerant (R32) when installing or removing the air conditioner.

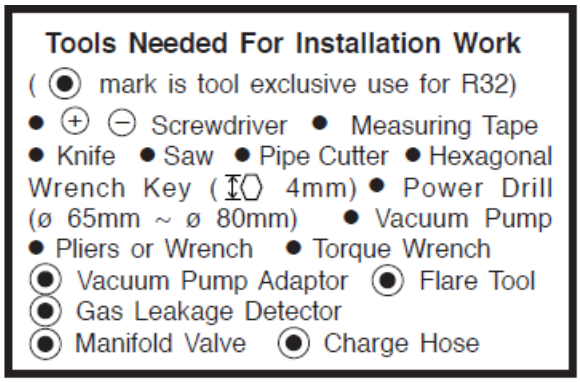
FAQ

Q: What should I do if I encounter water leakage, electric shock, or fire during installation?
A: Stop the installation process immediately and contact a qualified technician for assistance. Do not attempt to continue the installation on your own.

Q: Can I use a different refrigerant other than R32 with this air conditioner?
A: No, it is recommended to only use the specified refrigerant (R32) to ensure optimal performance and safety of the air conditioner.

FOR SERVICE
PERSONNEL ONLY

- Carefully read through the procedures of proper installation before starting installation work.
- The sales agent should inform customers regarding the correct operation of installation.



WARNING

- The flare nut must use a torque wrench without fail. Tighten with the specified tightening torque. If the flare nut is tightened too much, after a long period, the flare nut breaks, Gas leakage, stagnation, and touching fire, rarely cause ignition.
- Sharp bending of the pipe uses the polyethylene rod, not crushing the pipe. Gas leakage from the crushed part, stagnation, and touching fire, rarely cause ignition.
- Please request your sales agent or qualified technician to install your unit. Water leakage, short circuit, or fire may occur if you do the installation work yourself.
- Please observe the instructions stated in the installation manual during the process of installation. Improper installation may cause water leakage, electric shock, and fire.
- Make sure that the units are mounted at locations that can provide full support to the weight of the units. If not, the units may collapse and impose danger.
- Please ensure a smooth flow of water when installing the drain hose.
- Piping shall be suitable and supported with a maximum spacing of 1m between the supports.
- Please use the specified components for installation work. Otherwise, the units may collapse or water leakage, electric shock, and fire may occur.
- Be sure to use the specified piping set for R32. Otherwise, this may result in broken copper pipes or faults.
- When installing or removing an air conditioner, only specified refrigerant (R32) shall be allowed, do not allow air or moisture to remain in the refrigeration cycle. Otherwise, pressure in the refrigeration cycle may become abnormally high so a rupture may be caused.
- Be sure to ventilate fully if a refrigerant gas leaks while at work. If the refrigerant gas comes into contact with fire, a poisonous gas may occur. Be aware that refrigerants may not contain an odor.
- After completion of installation work, check to make sure that there is no refrigeration gas leakage. If the refrigerant gas leaks into the room, coming into contact with fire in the fan-driven heater, space heater, etc., a poisonous gas may occur.
- Unauthorized modifications to the air conditioner may be dangerous. If a breakdown occurs please call a qualified air conditioner technician or electrician. Improper repairs may result in water leakage, electric shock, and fire, etc.

- Must install air conditioner according to the electrical installation standards for Thailand of the Engineering Institue of Thailand under The Royal Patronage of His Majesty (the King).
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer. Any unfit method or using incompatible material may cause product damage, burst, and serious injury.
- The appliance/pipe-work shall be stored in a well-ventilated room with floor area larger than Amin(m2) [refer to figure installation] and without any continuously operating ignition source. Keep away from open flames, any operating gas appliances, or any operating electric heater. Else, it may explode and cause injury or death.
- The appliance/pipe-work shall be installed, and/or operated in a room with floor area larger than Amin(m2) [refer to figure installation] and keep away ignition sources, such as heat/spark/open flame or hazardous areas such as gas appliances, gas cooking, reticulated gas supply systems or electric cooking appliances, etc.
- Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flame, sparks, or other sources of ignition. Else, it may explode and cause injury or death.

SAFETY PRECAUTION

- Read the safety precautions carefully before operating the unit.
- The contents of this section are vital to ensure safety. Please pay special attention to the following sign.
  WARNING …….. Incorrect methods of installation may cause death or serious injury.
  CAUTION …… Improper installation may result in serious consequences.
  Be sure that the unit operates in proper condition after installation. Explain to the customer the proper way of operating the unit as described in the user's guide.

Access the full version of the User Installation Manual by scanning the code.

THE CHOICE OF MOUNTING SITE (Please note the following matters and obtain permission from the customer before installation).

INDOOR UNIT

WARNING

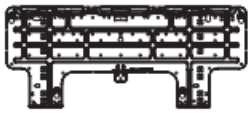
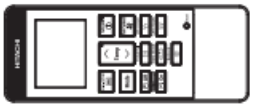
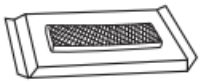
- The unit should be mounted at a stable, non-vibratory location that can provide full support to the unit.

CAUTION

- No nearby heat source and no obstruction near the air outlet are allowed.
- The clearance distances from top, right, and left are specified in figure below.

- The location must be convenient for water drainage and pipe connection with the outdoor unit.
- To avoid interference from noise please place the unit and its remote controller at least 1m from the radio, television, and inverter type fluorescent lamp.
- To avoid any error in signal transmission from the remote controller, please put the controller far away from high-frequency machines and high-power wireless systems.
- The installation height of the indoor unit must be 2.5m or more.

Names of Indoor Components

No.	Component's Name	Qty
①	Mounting Plate 	1
②	Screw for Mounting Plate  (4.1x32)	6
③	Remote Control Holder 	1
④	AAA Size Battery 	2
⑤	Screw for holder of Remote Controller  (3.1x16)	2
⑥	Remote Controller 	1
⑦	Purifying Filter 	1

WARNING
This symbol shows that this equipment uses a flammable refrigerant.
If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.

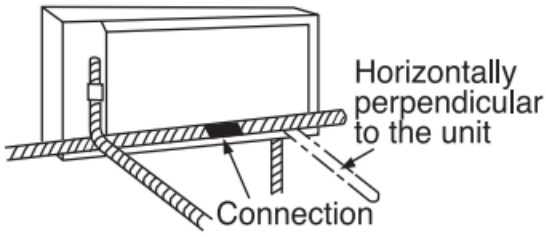
CAUTION
This symbol shows that the Operation Instructions should be read carefully.

This symbol shows that a service personnel should be handling this equipment with reference to the

Installation Manual.

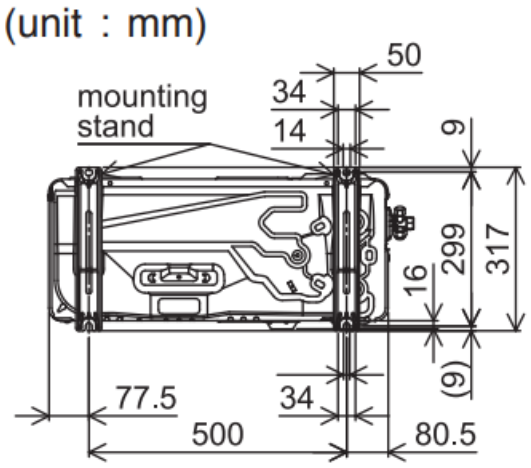
This symbol shows that there is information included in the Operation Manual and/or Installation Manual

Direction of Piping



There are 6 directions allowed, namely, horizontally perpendicular to the unit, vertically down from the right, horizontally out from the right, horizontally out to left, horizontally out to right, and vertically down from the left. Don’t form the piping downward at the left of the unit.

Dimension of Mounting Stand of the outdoor unit



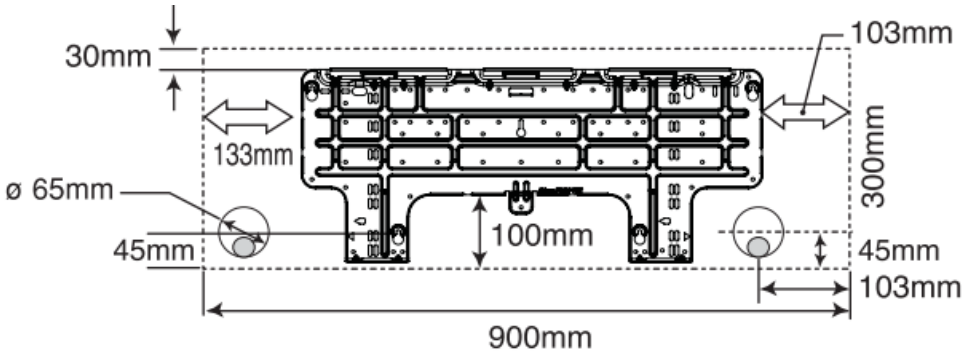
Installation of Hanger, Wall Penetration, and Installation Protection Pipe

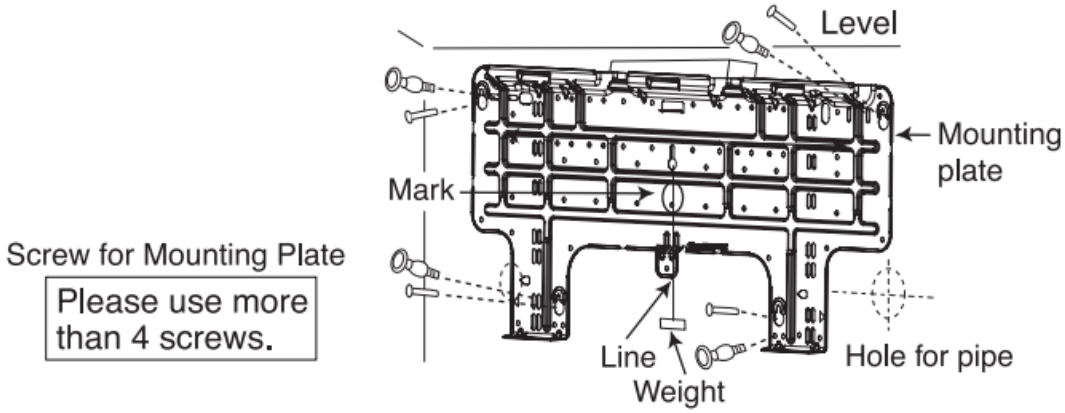
CAUTION

- The draining of the water container inside the indoor unit can be done from the left. Therefore the mounting plate must be fixed horizontally or slightly tilted toward the side of the drain hose. Otherwise, condensed water may overflow the water container.

Direct Mounting On The Wall

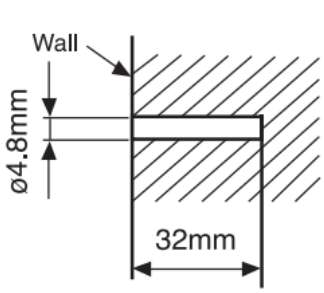
- Please use hidden beams in the wall to hold the mounting plate.

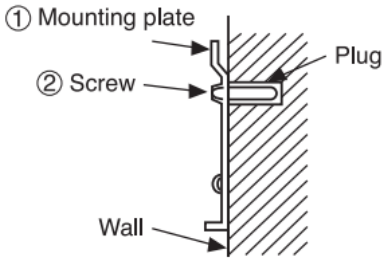


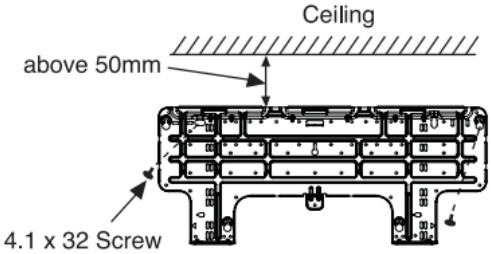


Procedures of Installation and Precautions

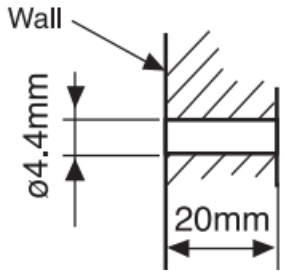
- Procedures to fix the mounting plate.
  1. Drill holes in the wall.
     (As shown below)
  2. Push the plug into the holes.
     (As shown below)
  3. Fix the mounting plate on the wall with a 4.1 x 32 screw (As shown in the figure below)

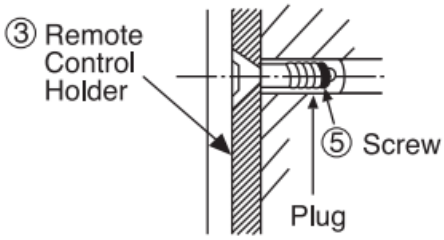






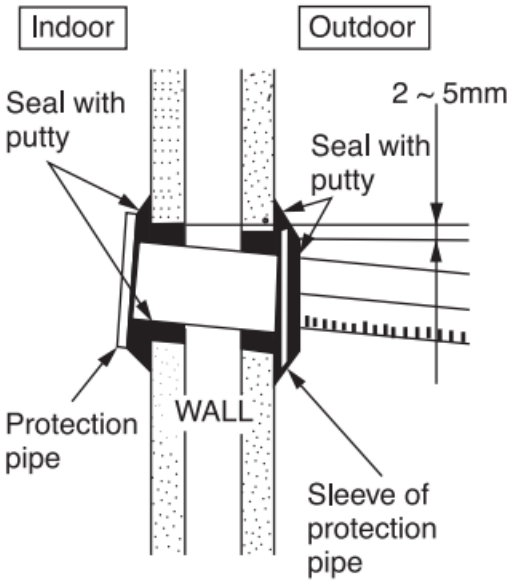
- Procedures to fix the holder of the remote control.
  - Drill holes in the wall.
    (As shown below)
- Push the plug into the holes.
  (As shown below)





Wall Penetration and Installation of Protection Pipe

- Drill a ø 65mm hole in the wall which is slightly tilted towards the outdoor side. Drill the wall at a small angle.
- Cut the protection pipe according to the wall thickness.
- The empty gap in the sleeve of the protection pipe should be completely sealed with putty to avoid dripping rain water into the room.



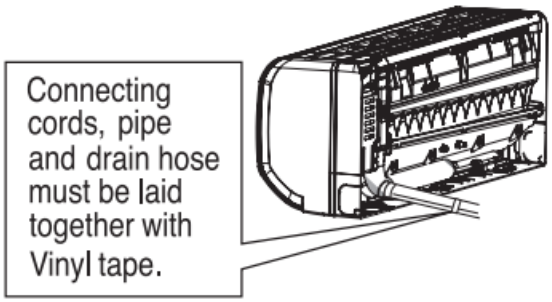
WARNING
Be sure that the wire is not in contact with any metal in the wall. Please use the protection pipe as wire passing through the hollow part of the wall so as to prevent the possibility of damage by the mouse. Unless it seals completely, any air with high humidity flows from outdoors, and dew may drop.

Installation of the Indoor Unit

VERTICALLY DOWNWARD PIPING

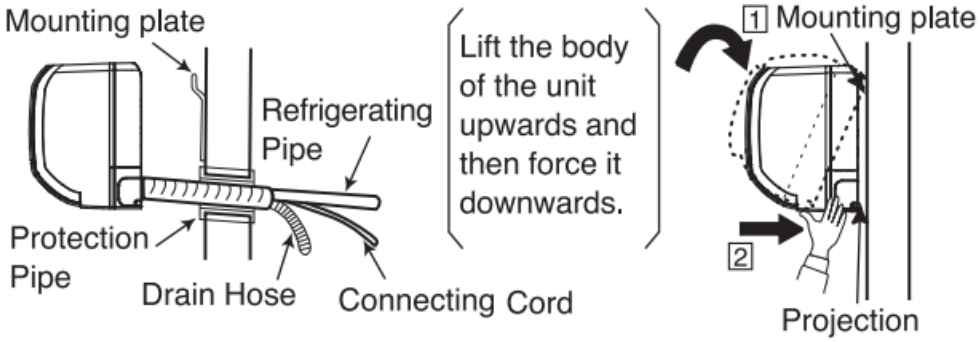
Preparation

- Connect the connecting cord.
- Pull out the pipe, connecting cord, and drain hose.



Installation

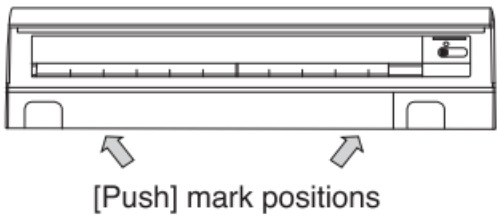
- The upper part of the indoor unit is hung on the mounting plate.
- The projection at the lower part of the indoor unit is hooked onto the mounting plate.



CAUTION
Please pull the lower part of the indoor unit outwards to check if the unit is hooked onto the mounting plate. Improper installation may cause vibration and noise.

HOW TO REMOVE INDOOR UNIT

- Push up the (PUSH) sections at the bottom of the indoor unit and pull the bottom plate towards you. Then the claws are released from the stationary plate.
  (The (PUSH) sections are indicated by 2 arrows in the right figure)

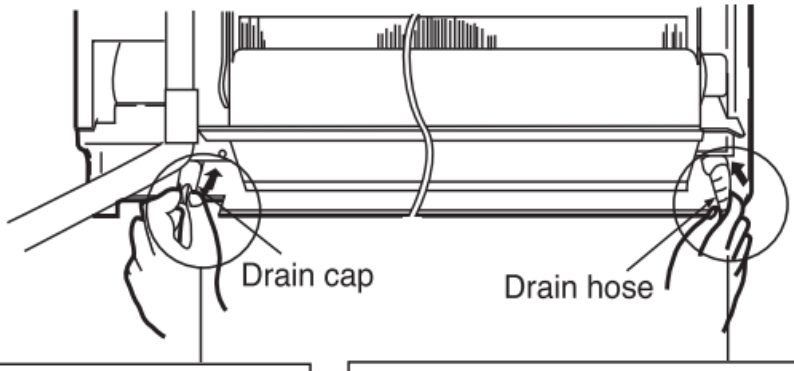


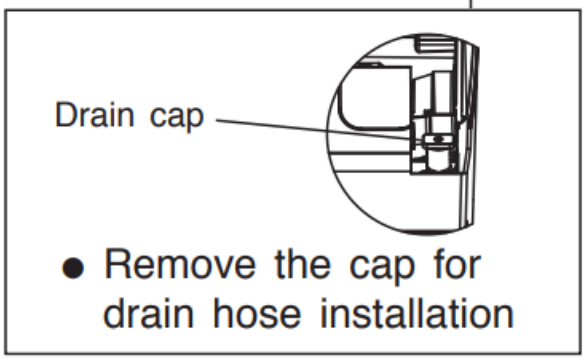
HORIZONTAL PIPING

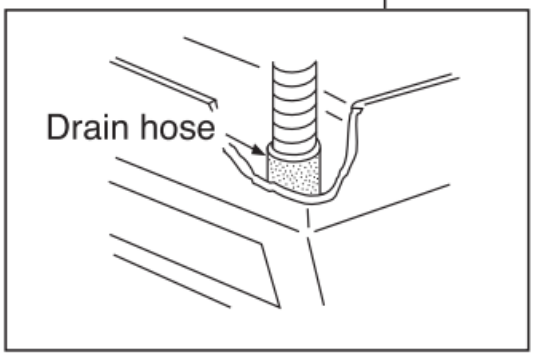
Preparation
Change of Drain Hose and Installation Procedures.

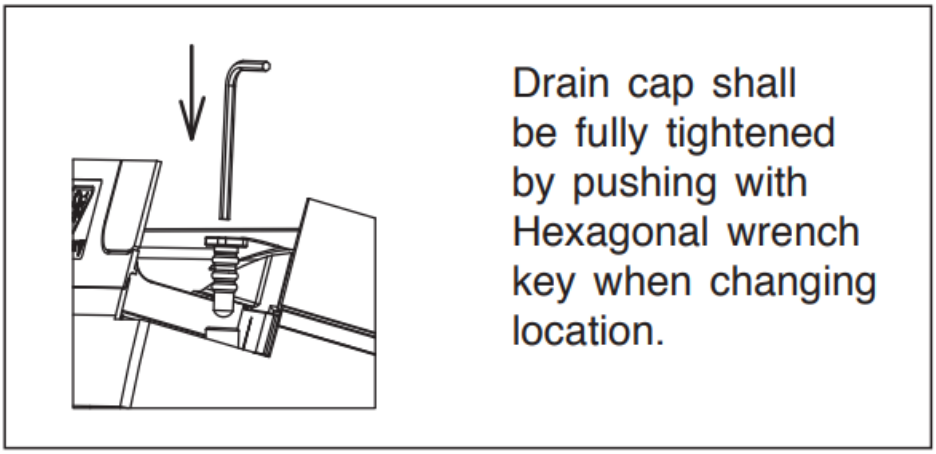
- Exchange the location of the drain hose and drain cap during horizontal piping as shown in figure below. Be sure to plug in the drain hose until the insulating material folds upon itself.
- Please use pliers to pull out the drain cap.

(This is an easier way to remove the drain cap).







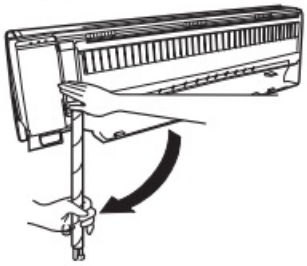


CAUTION
Condensed water may leak out if not inserted properly.

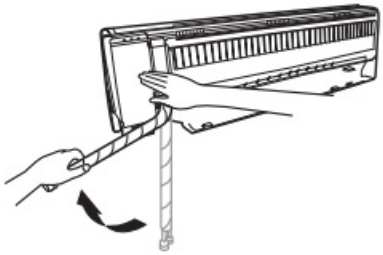
For horizontally out-to-right piping

- Press the upper side of clamp

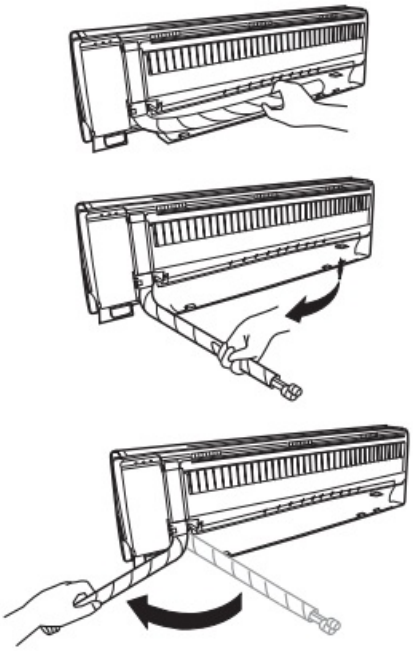
- Unfold the pipe to downward slowly.



- Bend the pipe to the right side of chassis.

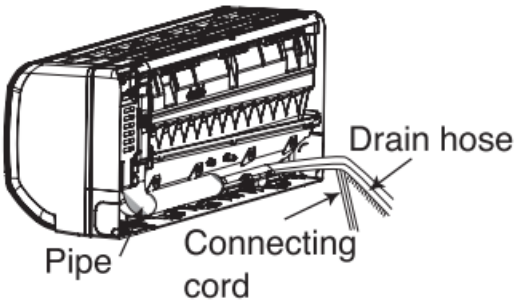


BAD
Following bending from left to right directly could cause damage to the pipe.

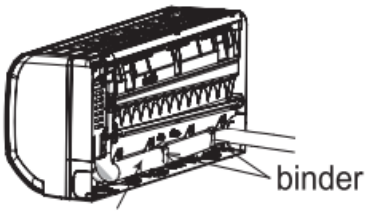


INSTALLATION OF REFRIGERATING PIPES AFTER CONNECTION

- The refrigerating pipes should be adjusted to fit into the hole in the wall and then ready for further connection.
- The terminals of 2 connected pipes must be covered with an insulator used for terminal connection. Then the pipes are wrapped with insulation pipe.
- Connect the connecting cord after removing the electrical cover.
  (Refer to “CONNECTION OF POWER CORD”)



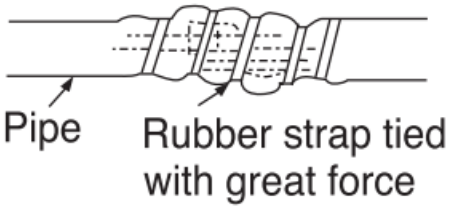
- After adjustment, fit the connecting cord and pipes into the space available under the indoor unit.
- When the connection is on the left side, the refrigerating pipe and cabinet shall be tied together.
  Failing to do so may cause the unit's bottom side to become warping.
  Excess binder shall be cut to prevent abnormal sound and water dripping.



Insulation pipe (must be wrapped with vinyl tape at every 120mm).

CAUTION

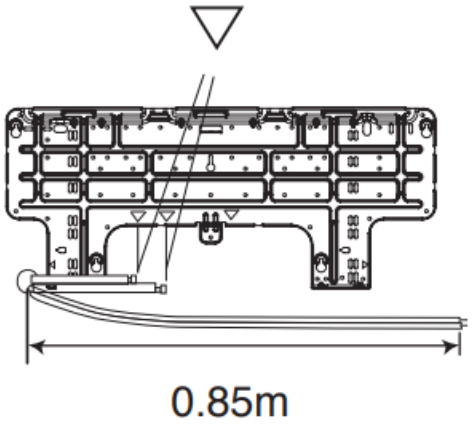
- The rubber strap used for fixing the insulator should not be tied with great force. Otherwise, this will damage heat insulation and cause water condensation.



THE CONNECTION OF THE REFRIGERATING PIPE DURING THE INSTALLATION OF THE INDOOR UNIT

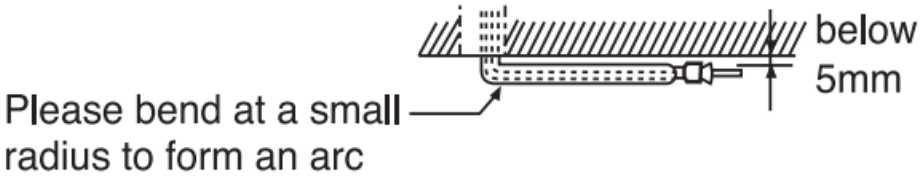
Preparation To Install Refrigerating Pipes

- The refrigerating pipes and connecting cord arrangement are attached.
- The end of the refrigerating pipes are at locations marked with the " ▽ " symbol.



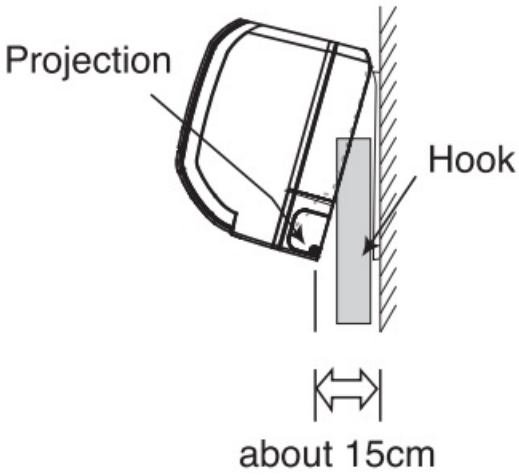
CAUTION

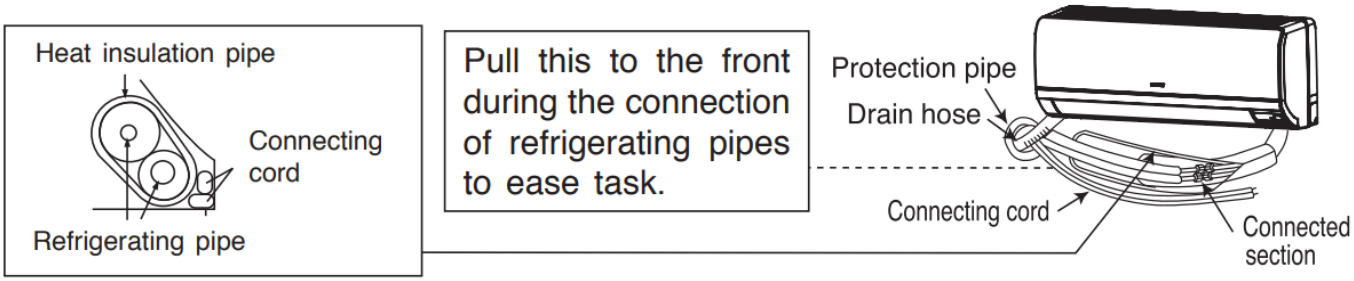
- Please fix in the plastic core after flaring to avoid copper chips entering the pipes.



Installation
Hang the Indoor unit onto the mounting plate. Use the temporary stand at the back of the Indoor unit to push its lower part 15cm forward.

- Place the drain hose through the hole in the wall.
- Wrap the refrigerating pipes with an insulation pipe after connecting the refrigerating pipe.
- Connect the connecting cord after removing the electrical cover. (Refer to “Connection of Power Cord”)
- After adjustment, the connecting cord and refrigerating pipes are placed into the space available under the Indoor unit.
- The projection of the Indoor unit must hook to the mounting plate.

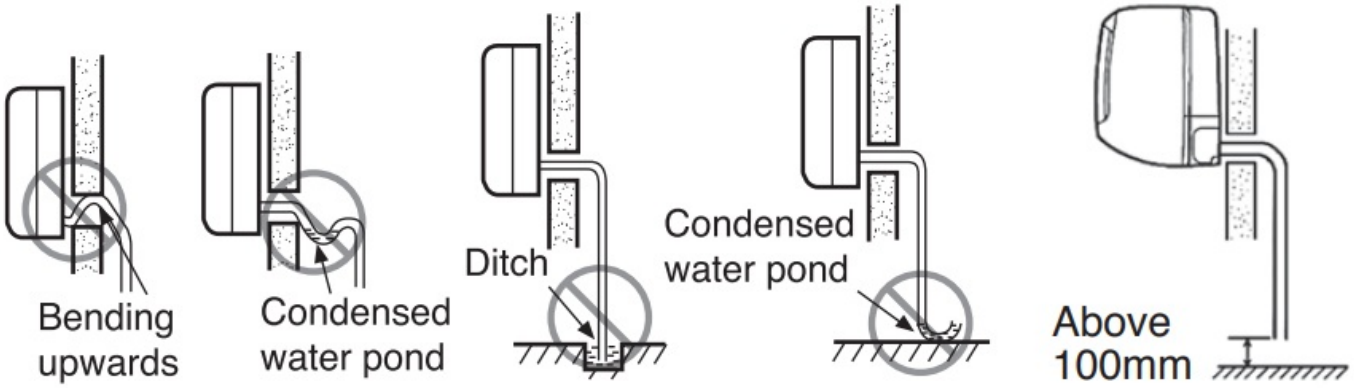




Installation of Drain Hose

CAUTION

- Do not guide the drain hose to places where corrosive gases (sulfur, ammonia, etc.) are generated, such as septic tanks and sewers.
  Corrosive gas may flow backward from the drain hose to the indoor unit, corrode the copper pipe, or it may cause offensive odors in the room.
- Cut the drain hose to a position 100 mm higher than the floor surface. It may cause water leakage due to air lock or clogging of foreign matter.



CAUTION
Be sure that the drain hose is not loosely connected or bent.

- You are free to choose the side (left or right) for the installation of the drain hose. Please ensure the smooth flow of condensed water in the Indoor unit during installation. (Carelessness may result in water leakage.)

OUTDOOR UNIT

WARNING

- The outdoor unit must be mounted at a location that can support heavy weight. Otherwise, noise and vibration will increase.

CAUTION

- Selecting the installation location: A suitable location that will reduce the impact of rain and direct sun that may affect the unit performance. Besides that, ventilation must be good and clear of obstruction.

- The air blown out of the unit should not point directly to animals or plants.
- The clearances of the unit from top, left, right, front, and back are specified in figure below. At least 3 of the above sides must be open-air.
- Be sure that the hot air is blown out of the unit and the noise does not disturb the neighborhood.
- Do not install at a location where there is flammable gas, steam, oil, and smoke.
- The location must be convenient for water drainage.
- Place the outdoor unit and its connection wire at least 1m away from the antenna or signal line of television, radio or telephone. This is to avoid noise interference.
- Do not install outdoor units facing strong wind direction. It may damage the fan motor.
- Do not install the outdoor unit in a place where small animals may build their nests. If a small animal goes inside the unit and touches the electrical parts, failure of the unit, smoke or fire may be caused. Request your customer to keep the surroundings of the unit clean.

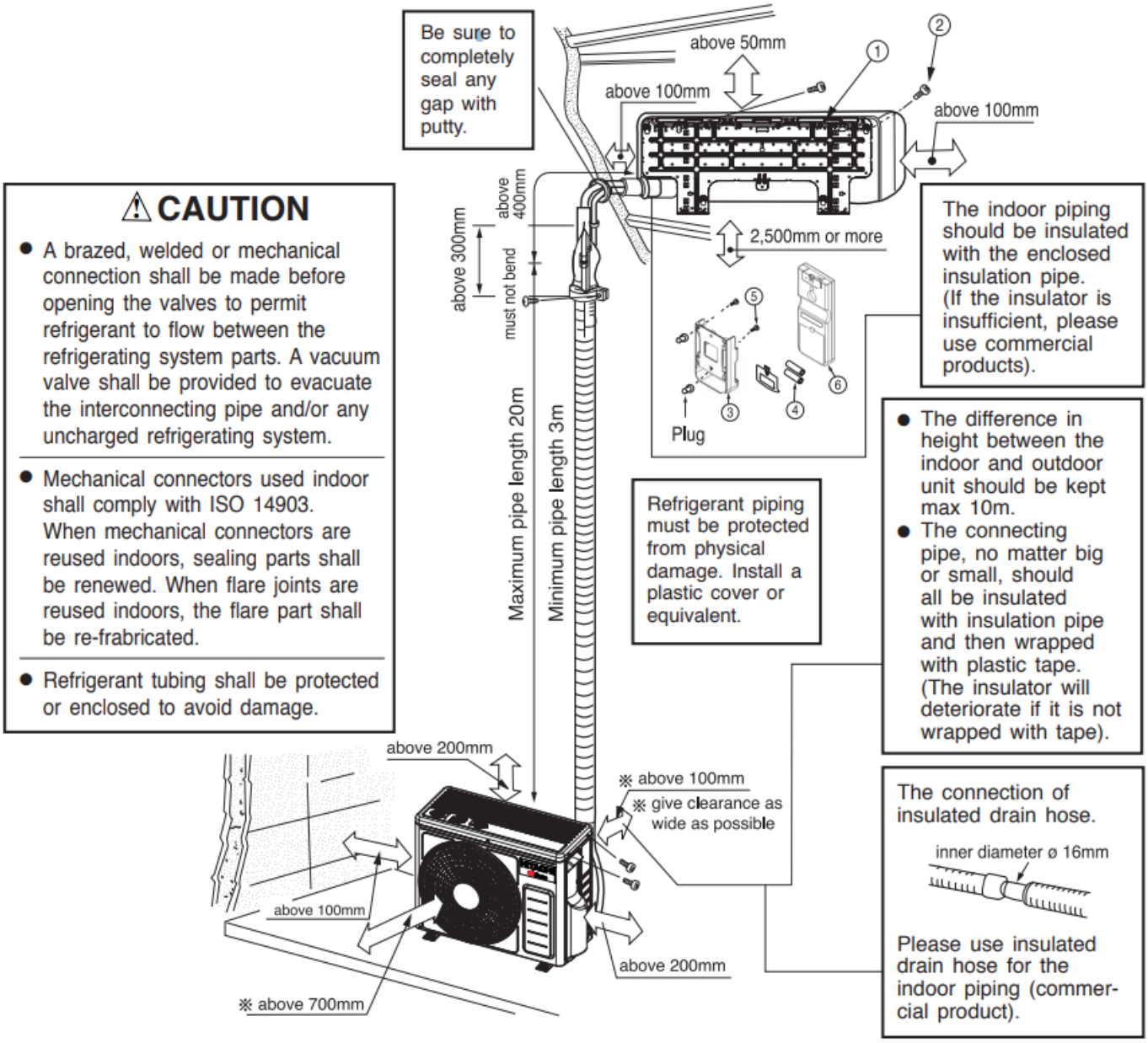
Figure showing the Installation of Indoor and Outdoor Unit

CAUTION
In case the pipe length is more than the recommended length for chargeless, add refrigerant R32 as below. Do not exceed the maximum pipe length.

Model	Factory charge R32	Indoor A_{min} (m2)	Chargeless up to	Additional R32	Maximum charge R32
RAC-QJ18PCBST	0.76kg	0.55m2	20m	—	0.76kg

WARNING

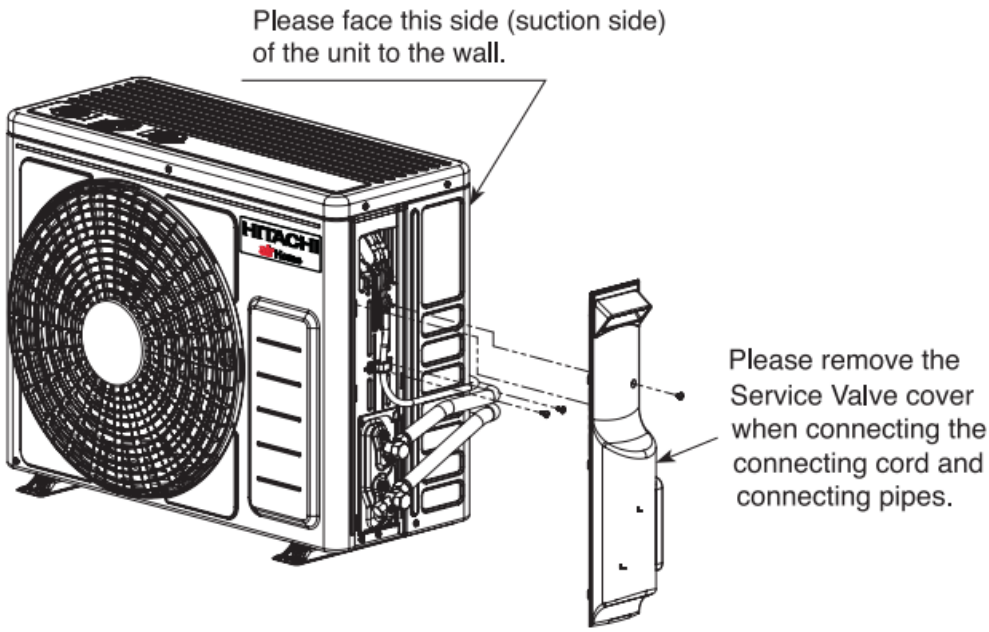
- Flare connection only outside of the building



⚠ CAUTION

- A brazed, welded or mechanical connection shall be made before opening the valves to permit refrigerant to flow between the refrigerating system parts. A vacuum valve shall be provided to evacuate the interconnecting pipe and/or any uncharged refrigerating system.
- Mechanical connectors used indoor shall comply with ISO 14903. When mechanical connectors are reused indoors, sealing parts shall be renewed. When flare joints are reused indoors, the flare part shall be re-frabricated.
- Refrigerant tubing shall be protected or enclosed to avoid damage.

- Please mount the Outdoor unit on stable ground to prevent vibration and increase of noise level.
- Decide the location for piping after sorting out the different types of pipe available.
- When removing the side cover, please pull the handle after undoing the hook by pulling it downward.



WARNING

- Use the two spanners on the service valve nuts to tighten and loosen so that the service valve will not deform. Gas leaks from the crushed part, stagnation, and touching fire, rarely cause ignition.

Do not solder pipes or other parts filled with refrigerant with low-temperature doped welding wire, such as tin-alloyed lead-doped metal.

PURGING OF REFRIGERANT IS PROHIBITED
Purging of refrigerant will cause the unit to lack refrigerant which may affect the capacity performance and lead to severe dew formation causing problems such as dew water drop or splashing from the unit.

When connecting pipes. If you tighten the flare nut by excess torque, the service valve on the small pipe side may be broken.
The flare nut on the small pipe side should be torqued to 122-165lbf.in (140-190kgf.cm).

WARNING

BURST HAZARD
Do not allow air, etc. to get into a refrigerant cycle (piping)

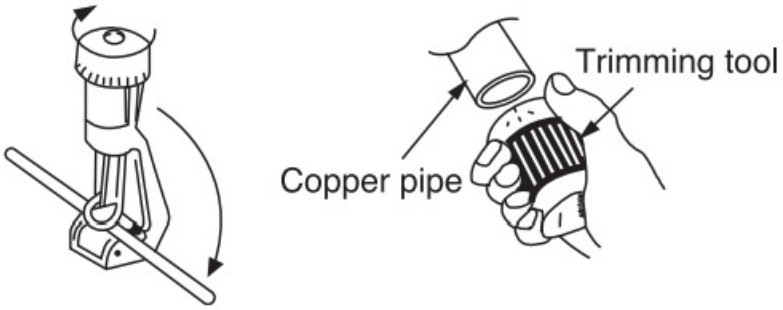
RISK OF EXPLOSION

- The compressor must be stopped before removing refrigerant pipes.
- All service valves must be fully closed after the pumping down operation.

INSTALLATION OF REFRIGERATING PIPES AND AIR REMOVAL

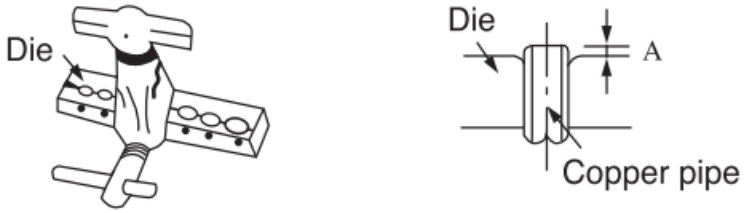
Preparation of Pipe

- Use a pipe cutter to cut the copper pipe.



CAUTION

- A jagged edge will cause leakage.
- Point the side to be trimmed downwards during trimming to prevent copper chips from entering the pipe.
- Before flaring, please put on the flare nut.

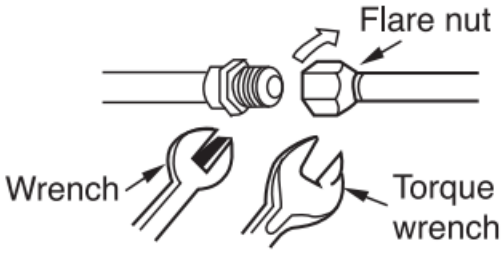


- Recommend to use R32 flaring tool

Outer Diameter (mm)	Thickness (mm)	A (mm)		
		Flare tool for R32 Clutch type	Conventional flare tool	
			Clutch type	Wing nut type
6.35 (1/4)	0.8	0.0 ~ 0.5	1.0 ~ 1.5	1.5 ~ 2.0
9.52 (3/8)	0.8	0.0 ~ 0.5	1.0 ~ 1.5	1.5 ~ 2.0
12.70 (1/2)	0.8	0.0 ~ 0.5	1.0 ~ 1.5	1.5 ~ 2.5
15.88 (5/8)	1.0	0.0 ~ 0.5	1.0 ~ 1.5	1.5 ~ 2.5

Pipe Connection

CAUTION
In case of removing flare nut of an Indoor unit, first remove a nut of a small diameter side or a seal cap of a big diameter side will fly out. Prevent water from entering into the piping when working.



		The outer diameter of the pipe	Torque N.m (kgf ● cm)
Small dia. side		6.35 (1/4″)	13.7 ~ 18.6 (140 ~ 190)
		9.52 (3/8″)	34.3 ~ 44.1 (350 ~ 450)
Large dia. side		12.7 (1/2″)	44.1 ~ 53.9 (450 ~ 550)
		15.88 (5/8″)	49 ~ 58.8 (500 ~ 600)
Valve head cap	Small dia. side	6.35 (1/4″)	19.6 ~ 24.5 (200 ~ 250)
	Large dia. side	9.52 (3/8″) 12.7 (1/2″)	19.6 ~ 24.5 (200 ~ 250) 29.4 ~ 34.3 (300 ~ 350)
		15.88 (5/8″)	29.0 ~ 31.0 (296 ~ 316)
Valve core cap			12.3 ~ 15.7 (125 ~ 160)

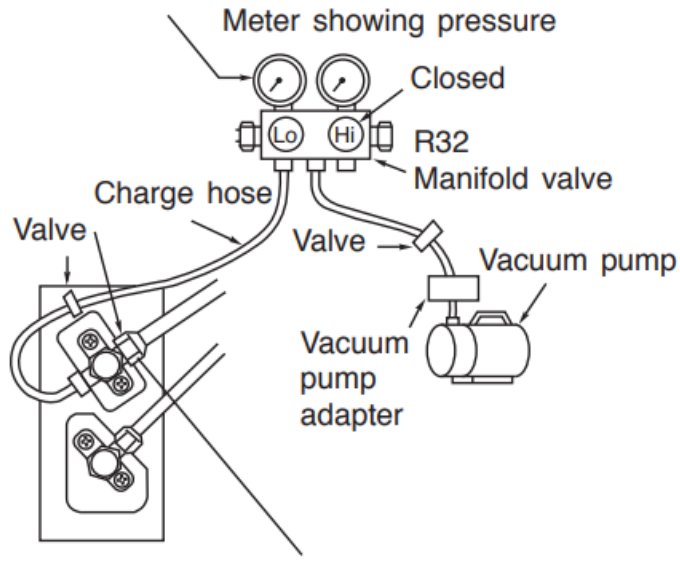
AIR REMOVAL

Removal Of Air From The Pipe And Gas Leakage Inspection

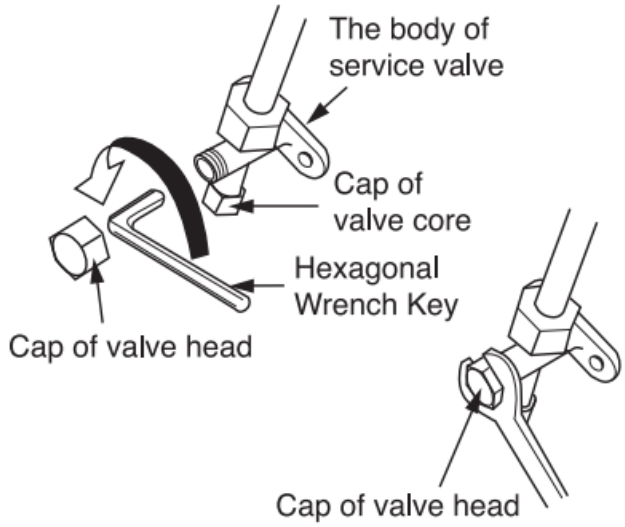
Procedures for Using Vacuum Pump for Air Removal

1. As shown in the right figure, remove the cap of the valve core. Then, connect the charge hose. Remove the cap of the valve head. Connect the vacuum pump adapter to the vacuum pump and connect the charge hose to the adapter.
2. Fully tighten the “Hi” knob of the manifold valve and completely unscrew the “Lo” knob. Run the vacuum pump for about 10~15 minutes, then completely tighten the “Lo” knob and switch off the vacuum pump.
   After vacuuming, confirm that the needle of the manifold gauge is stable for 3~5 minutes.
3. Remove the charge hose and tighten the cap of the valve core. Check the cap’s periphery if there is any gas leakage.
4. Completely unscrew the spindle of the service valve (at 2 places) in an anti-clockwise direction to allow the flow of refrigerant (using the Hexagonal Wrench key).
5. Re-cap the service valve and tighten using a wrench. Check the cap’s periphery if there is any gas leakage.
   The task is then completed.

When the meter reaches - 101KPa (-76cmHg) during pumping, fully tighten the shuttle.



When pumping starts, slightly loosen the flare nut to check of air sucked in. Then tighten the flare nut.

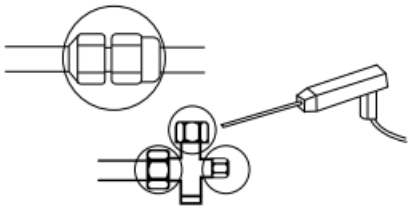


CAUTION

- Prevent moisture from entering the pipe connection.
- Refrigerating machine oil not be applied to the outside of the flare.
  When refrigerating machine oil is applied to the outside of the flare, excessive tightening of the flare nut, cracking of the flare nut, destruction of the flare, and gas leakage.
- When using the control valve, do not use deteriorated packing. And, do not over-tighten the steering wheel. Gas leakage from the service valve part, stagnation, and touching fire, rarely cause ignition.

Gas Leakage Inspection
Please use a gas leakage detector to check if leakage occurs at the connection of the Flare nut as shown on the right.

If gas leakage occurs, further tighten the connection to stop leakage. (Use the detector provided for R32)

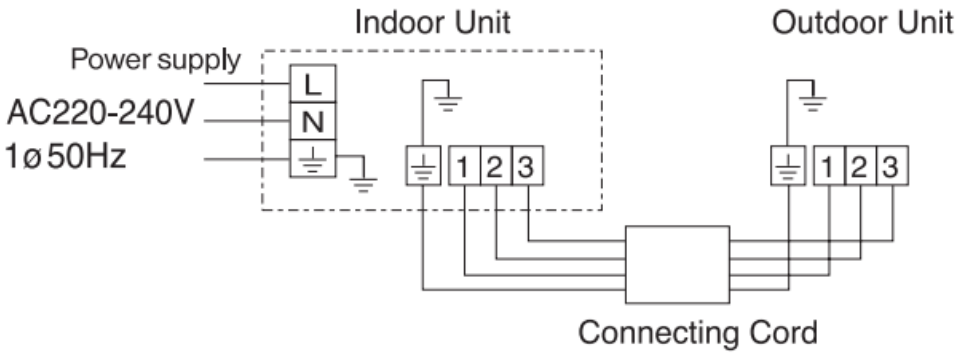


CONNECTION OF POWER CORD

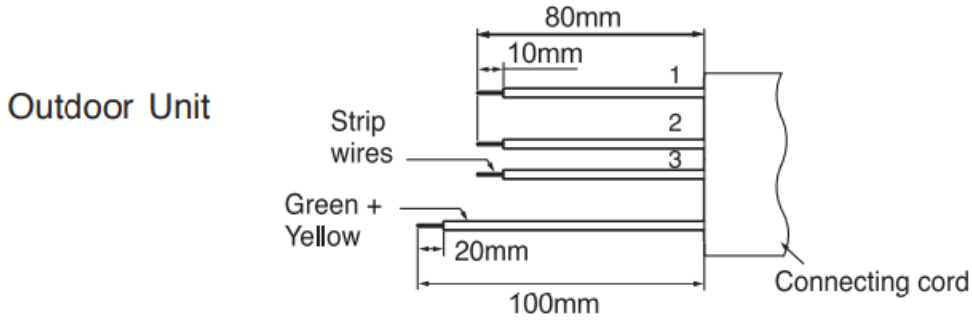
WARNING
THIS APPLIANCE MUST BE EARTHED.

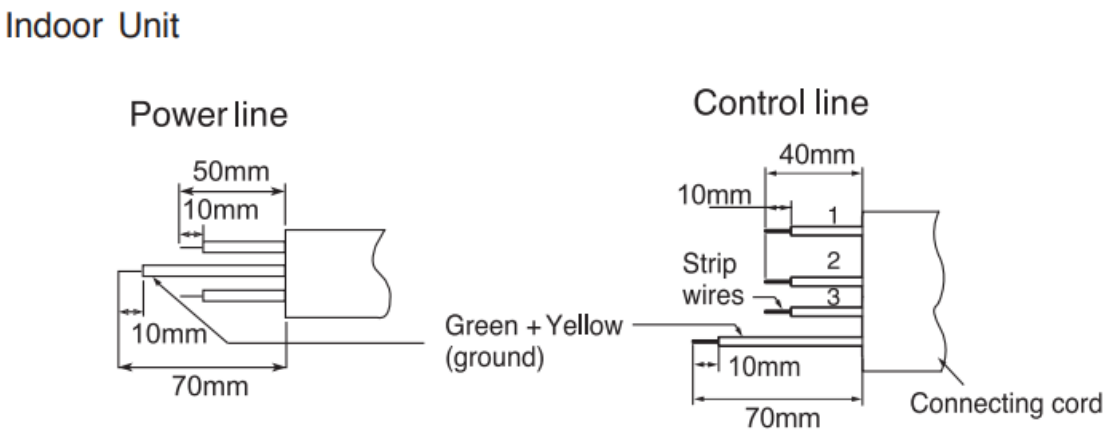
Must install air conditioner according to the electrical installation standards for Thailand of the Engineering Institue of Thailand under The Royal Patronage of His Majesty (the King).

Procedures of Wiring



Detail of cutting the connecting cord



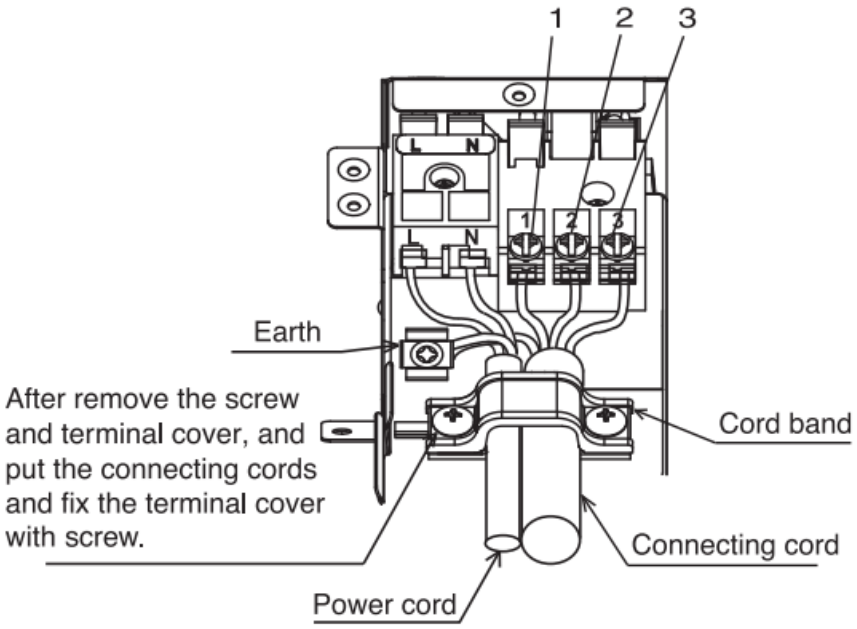


WARNING

- The naked part of the wire core should be 10 mm fix it to the terminal tightly. Then try to pull the individual wire to check if the contact is tight. Improper insertion may burn the terminal.
- Be sure to use only wire specified for the use of air-conditioner.
- Please refer to the manual for wire connection and the wiring technique should meet the standard of the electrical installation.
- There is an AC voltage drop between the LN terminal if the power is on. Therefore, be sure to remove the plug from its socket.

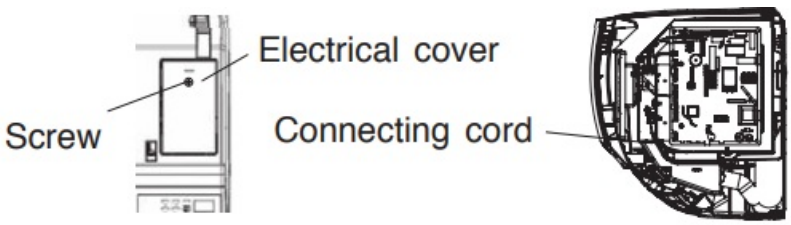
Wiring Of The Indoor Unit

- For the wire connection of the Indoor unit, you need to remove the front cover, the low cover under the body of the unit, and the terminal cover.
- Remove the cover from the terminal base and screw the cable.



Method to remove the electrical cover

- Remove the screw and electrical cover.
- Insert the connecting cord (1, 2, 3) from the back of the unit.
- Fixed the wire to terminal wires firmly as shown as below.

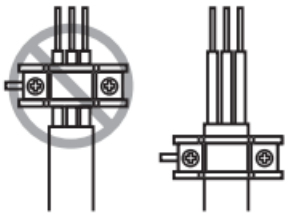


WARNING

- Leave some space in the connecting cord for maintenance purposes and be sure to secure it with the cord

band.

- Secure the connecting cord along the coated part of the wire using the cord band. Do not exert pressure on the wire as this may cause overheating or fire.
- Supply cords, current-carrying conductors become taut before earthing the conductor if the cord slips out of the cord band.



IMPORTANT

Circuit Breaker
16A

For (Power cord - L, N, Earth)

Wire cross-section
2.5 mm^2

For (Connecting cord - 1, 2, 3, Earth)

Wire length	Wire cross-section
up to 20m	1.5mm^2

Wiring Of The Outdoor Unit

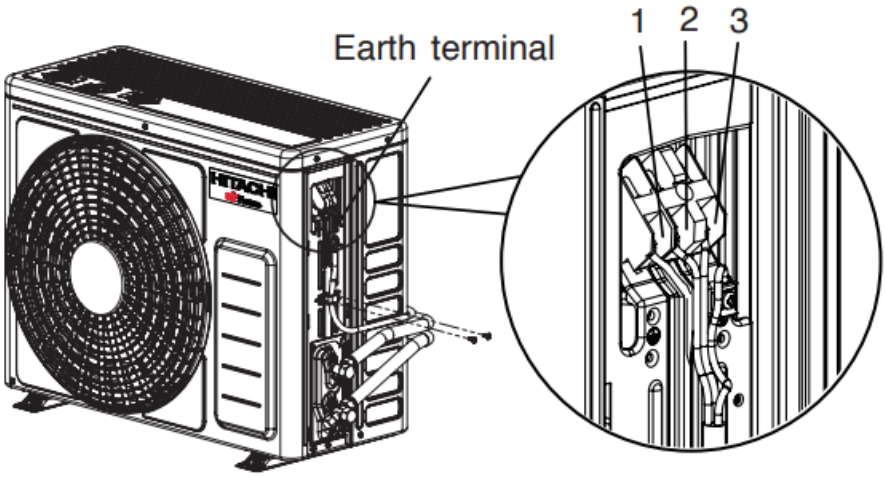
- Please remove the side cover for the wire connection.

WARNING

- If you cannot attach the side plate due to the connecting cord, please press the connecting cord in the direction to the front panel to fix it.
- Be sure that the hooks of the side cover are fixed in certainly. Otherwise, water leakage may occur and this causes short circuits or faults.

Checking for the electric source and the voltage range

- Before installation, the power source must be checked and necessary wiring work must be completed. To make the wiring capacity proper, use the wire gauge list below for the wiring from the house distribution fuse box to the outdoor unit in consideration of the locked rotor current.
- Investigate the power supply capacity and other electrical conditions at the installing location.
  Depending on the model of the room air conditioner to be installed, request the customer to make arrangements for the necessary electrical work etc.
  The electrical work includes the wiring work up the outdoor unit. In localities where electrical conditions are poor, use of a voltage regulation is recommended.
- Install outdoor for the room air conditioner within the reaching range of the line cord.



CAUTION
Note:

- Outdoor supply cords shall not be lighter than polychloroprene sheathed flexible cords with code designation, 60245 IEC 57.

CAUTION

- A circuit breaker must be installed. Without a circuit breaker or fuse the danger of electric shock exists.
  A main switch with a contact gap of more than 3mm has to be installed in the power supply line to the outdoor unit.
- Do not install the unit near a location where there is flammable gas. The outdoor unit may catch fire if fl ammable gas leaks around it.

- Do not install the indoor unit in a machine shop or kitchen where vapor from oil or its mist flows to the indoor unit. The oil will deposit on the heat exchanger, thereby reducing the indoor unit's performance, and may deform and in the worst case, break the plastic parts of the indoor unit.
- Observe the rules and regulations of the electrical installation and the methods described in the installation manual when dealing with the electrical work. Use power cables approved by the authorities of your country.
- Be sure to use the specified wire for connecting the indoor and outdoor units. Please ensure that the connections are tight after the conductors of the wire are inserted into the terminals. Improper insertion and loose contact may cause overheating and fire.

WARNING

Transport Details Marking and storage Air conditioners that use fl ammable refrigerants.

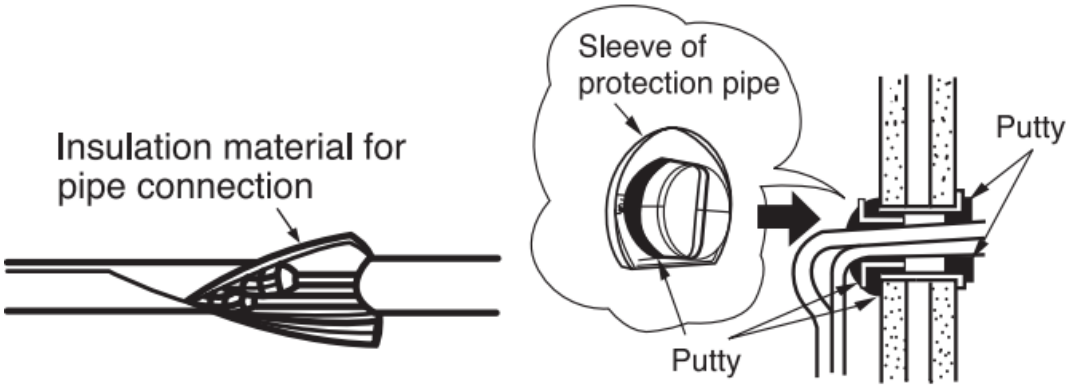
- Transportation of air conditioners containing combustible refrigerant
- Disposal of air conditioners using flammable refrigerants
- Air conditioning storage

- Storage of air conditioners in packaging (not yet sold)

FINAL STAGE OF INSTALLATION

Insulation And Maintenance Of Pipe Connection

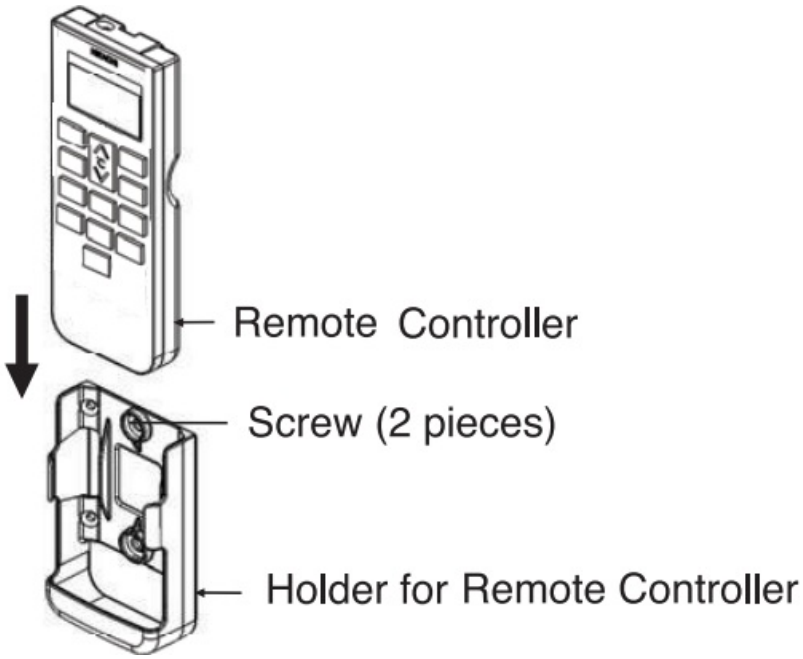
- The connected terminals should be completely sealed with a heat insulator and then tied up with a rubber strap.
- Please tie the pipe and power line together with vinyl tape as shown in the figure showing the installation of Indoor and Outdoor units. Then fix their position with holders.
- To enhance the heat insulation and to prevent water condensation, please cover the outdoor part of the drain hose and pipe with an insulation pipe.
- Completely seal any gap with putty.



Installation Of Remote Controller

- The remote controller can be placed in its holder which is fixed on a wall or beam.
- To operate the remote controller at its holder, please ensure that the unit can receive a signal transmitted from the controller at the place where the holder is to be fixed. The unit will beep when the signal is received from the remote controller. The signal transmission is weakened by the fluorescent light. Therefore, during the installation of the remote control holder, please switch on the light, even during the daytime, to determine the mounting location of the holder.

The controller should be inserted from the top into the bottom side of the holder as shown below.



Pump Down Method When Reuse Existing Piping (R410A Model) for R32 Model

- The compressor oil of the R410A model is insoluble in the compressor oil of the R32 model. The mixing of compressor oil may cause damage to the compressor.

Possibility of Mixing

- Reuse of piping of the R410A model is dangerous because of its compressor oil.
- When reusing piping of the R410A model, pump down must be carried out properly to ensure compressor oil that remained inside the piping is collected away.

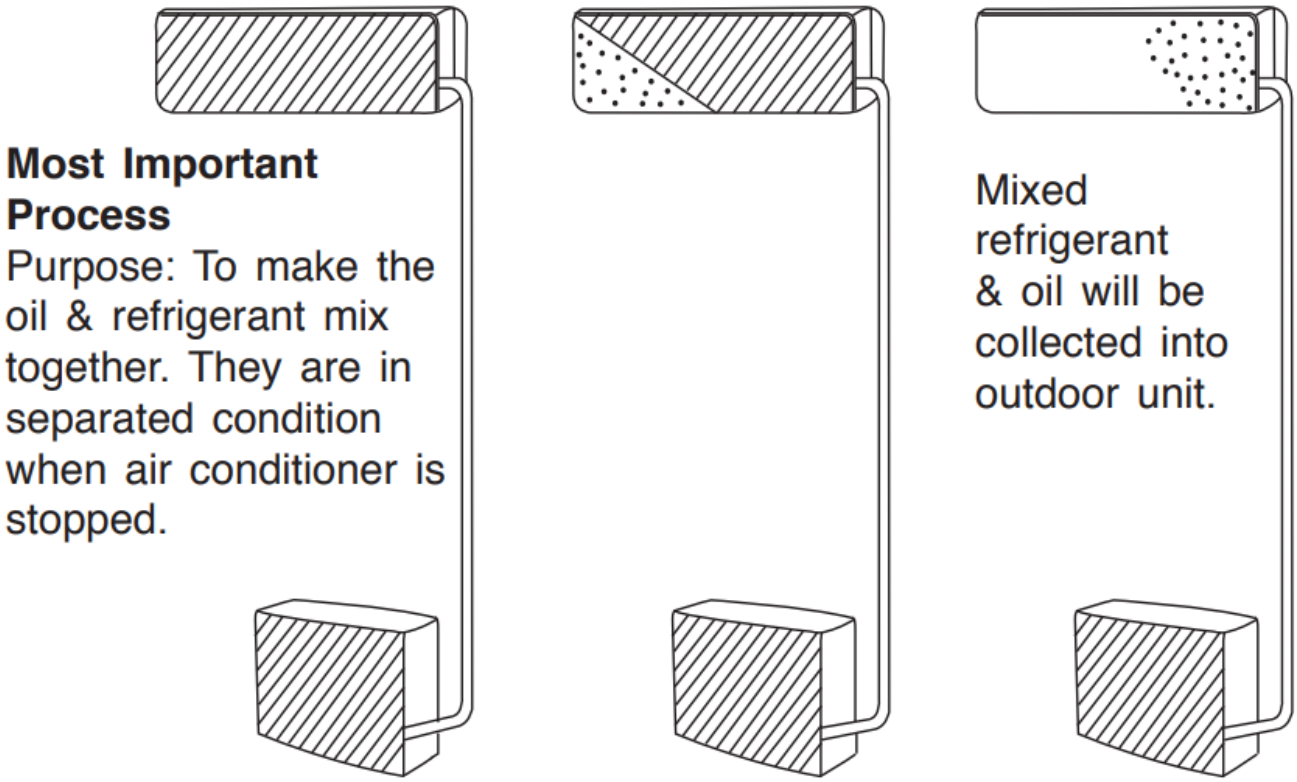
CAUTION
Reuse of piping R410A model only applies if the previous model is Hitachi and proper pump down method is used.

To Reuse Old Piping

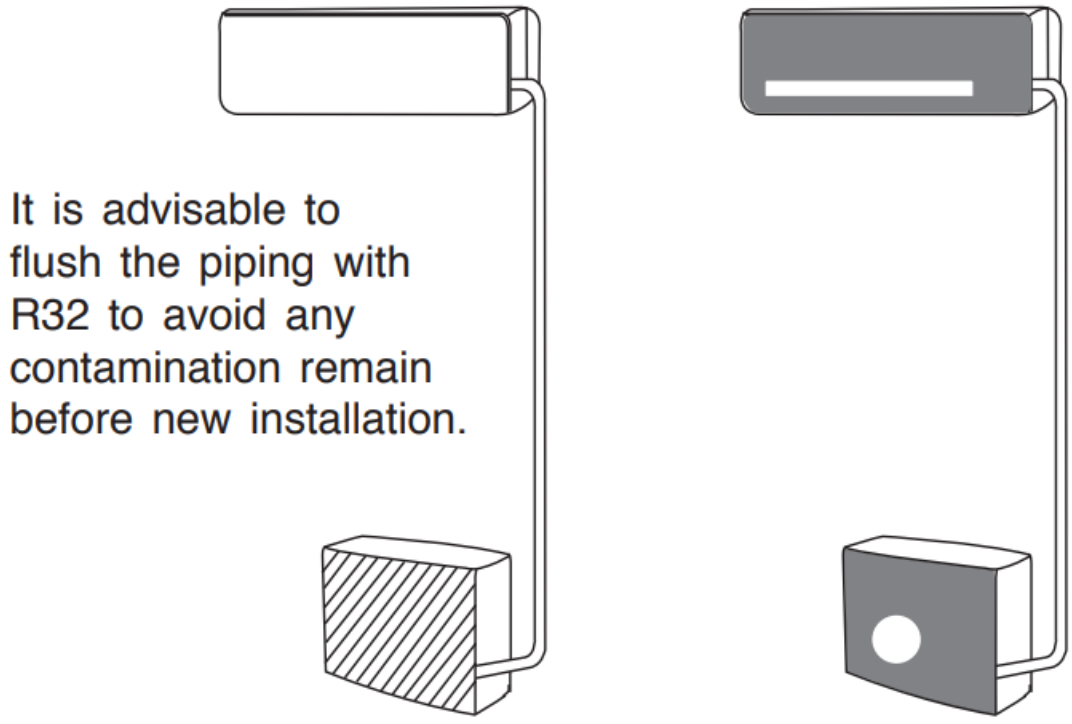
- Piping of the R410A model can be reused only when the air-conditioner is properly pumped down.
- The purpose of the pump down is to collect back the compressor oil (which is mixed with refrigerant and circulating inside the refrigeration cycle) properly into the outdoor unit of air conditioner.

Proper Pump Down Method

1. Operate the air conditioner at cooling mode for 10~15 minutes
2. After 10~15 minutes of pre-operation, close the 2s valve. After 3 minutes, close the 4s valve.



3. Take out the air conditioner unit.
4. Install New Refrigerant air conditioner



WARNING
BURST HAZARD
Do not allow air, etc. to get into a refrigerant cycle (piping)

RISK OF EXPLOSION

- The compressor must be stopped before removing refrigerant pipes.
- All service valves must be fully closed after the pumping down operation.

Power Source And Operation Test

Power Source

CAUTION

- Please use a new socket. Accidents may occur due to the use of old sockets because of poor contact.
- Please plug in and then remove the plug for 2 – 3 times. This is to ensure that the plug is completely plugged into the socket.
- Keep additional length for the power cord and do not render the plug under external force as this may cause poor contact.
- Do not fix the power cord witha U-shape nail.

Operation Test

- Please ensure that the air conditioner is in normal operating condition during the operation test.
- Explain to your customer the proper operation procedures as described in the user's manual.

If a wrong supply voltage is applied.

- If a 220-240V model is connected to a 100V power supply, all the indicators of the indoor unit blink. Correct the voltage of the power outlet (It is not a failure).

Trial run

Be sure to measure the supply voltage before connecting the power cord to the power outlet.

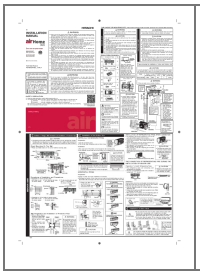
Perform a trial run to make sure that the air conditioner operates properly.

1. Press the COOL button (in summer) or HEAT button (in winter) of the remote controller.
2. Press the ROOM TEMPERATURE button to set the temperature to 16°C for cooling mode or 32°C for heating mode. Set the fan speed to "  " (HI).
3. Operate the air conditioner for at least 20 minutes and make sure that the air from the air conditioner is cool or warm.
4. Press the STOP button on the remote controller to make sure that the air conditioner stops running.
    - If the indicators of the indoor unit blink during the trial run, perform a check following the procedures below.

Indicator Blinking Mode	What to check
All indicators blink	Make sure that the
once repeatedly	voltage of the power
	outlet is correct
	according to the product
	specification.
All indicators blink	Make sure that the
twice repeatedly.	connecting cord is
	connected correctly and
	securely.

- To reset the power supply by switching the circuit breaker OFF, and ON only after:
  1. waiting for at least 5 minutes; or
  2. pressing the temporary switch button only once while the power is OFF.

Documents / Resources

	HITACHI RAK-QJ18PCBST Split Unit Air Conditioner [pdf] Installation Guide RAK-QJ18PCBST Split Unit Air Conditioner, RAK-QJ18PCBST, Split Unit Air Conditioner, Air Conditioner, Conditioner

References

- User Manual