

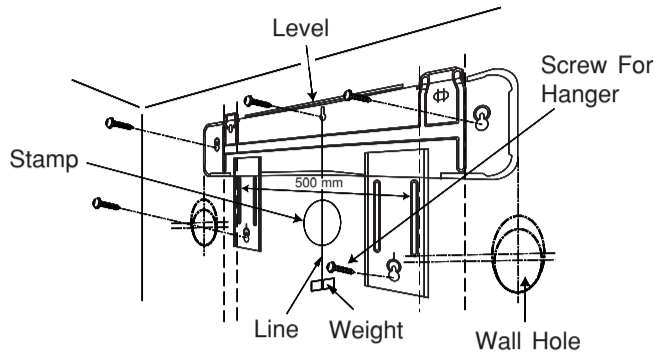
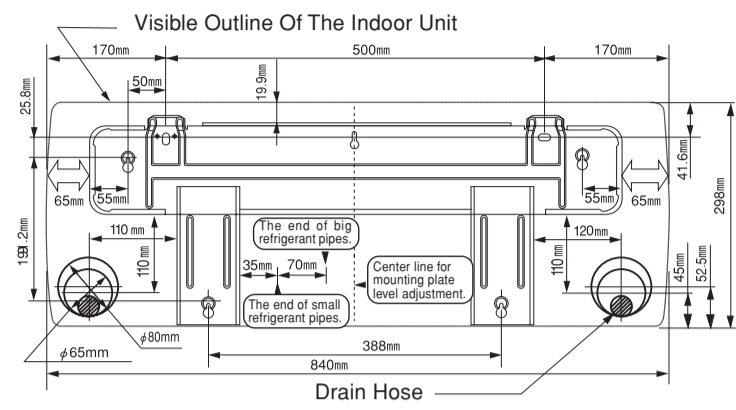
1 Installation of Mounting Plate, Wall Penetration And Protection Pipe

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 towards the side of drain hose. Otherwise, condensed water may overflow the water container.

Direct Mounting On The Wall

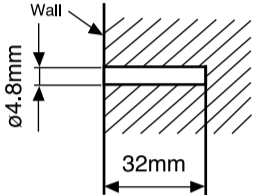
- Please use hidden beams in the wall to hold the mounting plate.



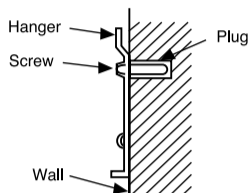
Procedures of Installation and Precautions

- Procedures to fix the mounting plate.

1. Drill holes on wall. (As shown below)

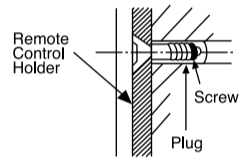
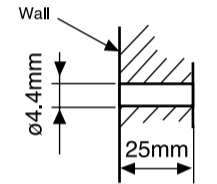


2. Fix the mounting plate on wall with 4.1 x 32 screw (As shown in figure below)



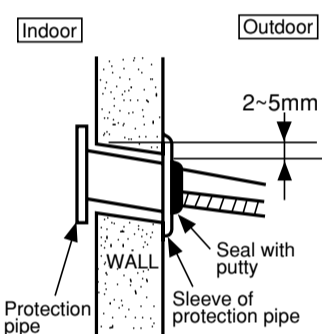
- Procedures to fix the holder of remote control.

1. Drill holes on wall. (As shown below)



Wall Penetration and Installation of Protection Pipe

- Drill a ϕ 65mm hole on 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.
- Empty gap in the sleeve of protection pipe should be completely sealed with putty to avoid dripping of rain water into the room.



CAUTION

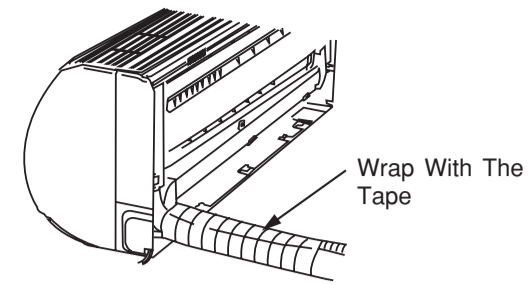
Be sure that the wire is not in contact with any metal in the wall. Please use the protection pipe as wire passing through the hollow part of the wall so as to prevent the possibility of damaged by mouse.

2 Installation of the Indoor Unit

VERTICALLY DOWNWARD PIPING

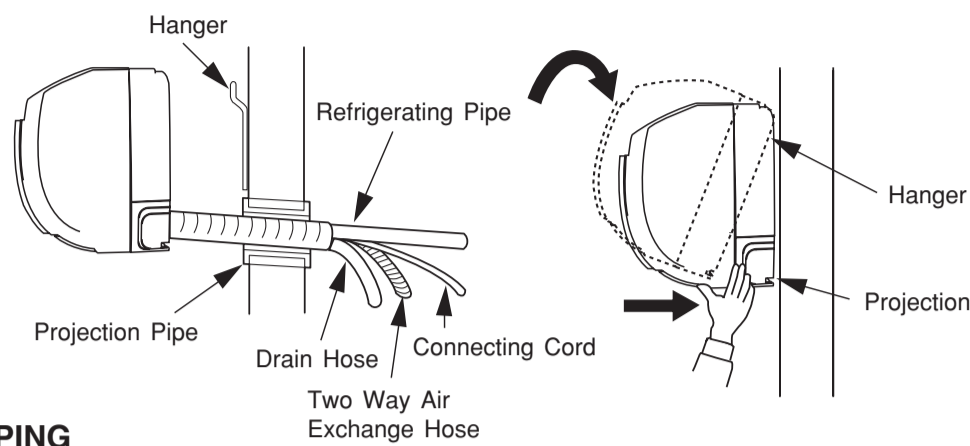
Preparation

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



Installation

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



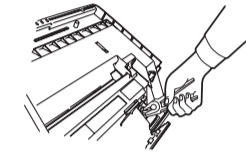
HORIZONTAL PIPING

Preparation

Change of Drain Hose and Installation Procedures.

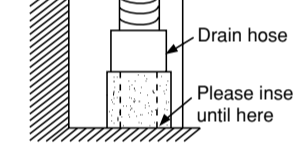
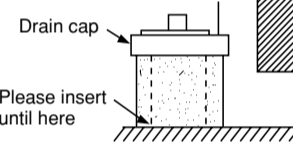
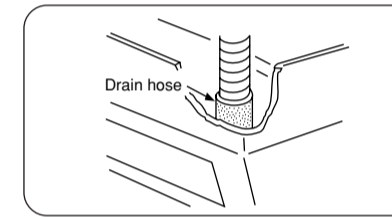
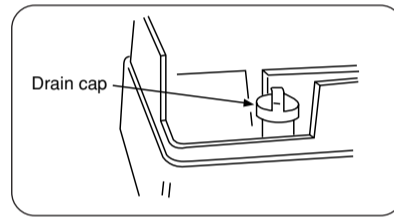
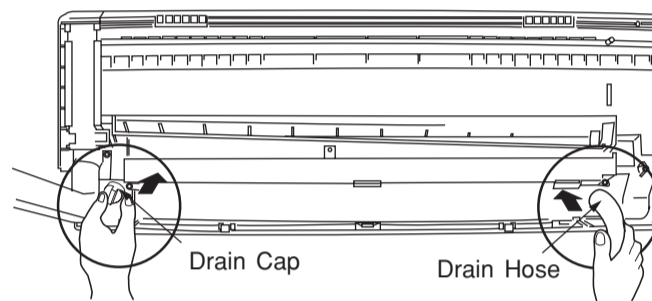
- Exchange the location of drain hose and drain cap during horizontal piping as shown in figure below. Be sure to plug in the drain hose until the insulating material folds upon itself.

- Please use pliers to pull out the drain cap. (This is an easier way to remove the drain cap).



CAUTION

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.

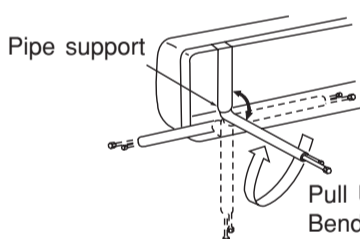


CAUTION

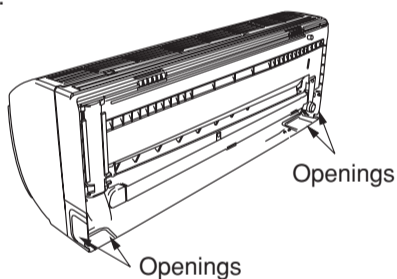
Condensed water may leak out if not inserted properly.

HORIZONTAL & DOWNWARD PIPING – MAKING OPENINGS

- During horizontal or downward piping, use a knife to cut openings as shown in figure. Then smoothen the edges of openings with a file.



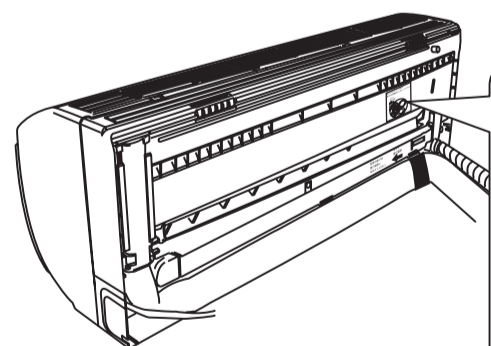
Pull Up The pipe After Bending Downward



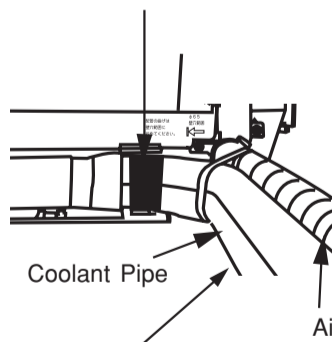
- Transform the piping while holding down the lower portion of pipe-support by hand.

INSTALLATION OF COOLANT PIPES AFTER CONNECTION

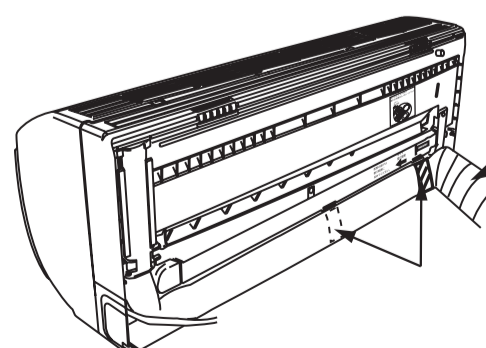
- The coolant pipes should be adjusted to fit into the hole on the wall and then ready for further connection.
- The terminals of 2 connected pipes must be covered with insulator used for terminal connection.
- Connect the power cord.
- After adjustment, fit the power cord and pipes into the space available under the indoor unit.



Cross section view for pipes arrangement at backward ϕ 65 wall diameter.



Bend Coolant Pipe Until Touching Air Exchanger Hose As Shown in Figure



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

CAUTION

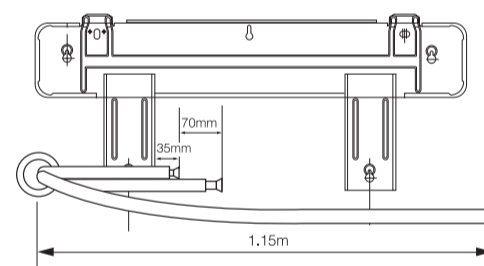
- The rubber strap used for fixing the insulator should not be tied with great force. Otherwise, this will damage heat insulation and causes water condensation.



THE CONNECTION OF COOLANT PIPE DURING THE INSTALLATION OF INDOOR UNIT

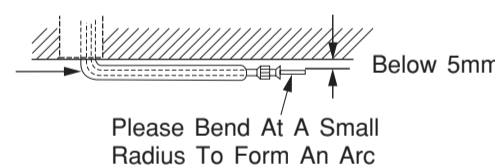
Preparation To Install Coolant Pipes

- Coolant pipes and power cord must be tied together.

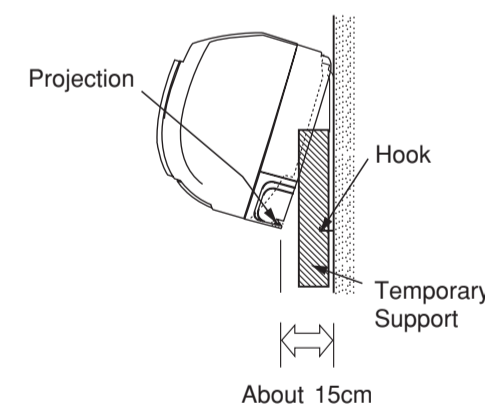


CAUTION

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



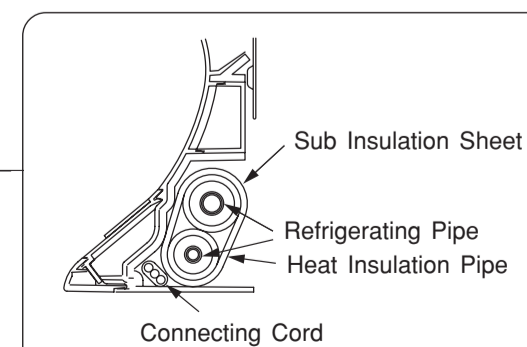
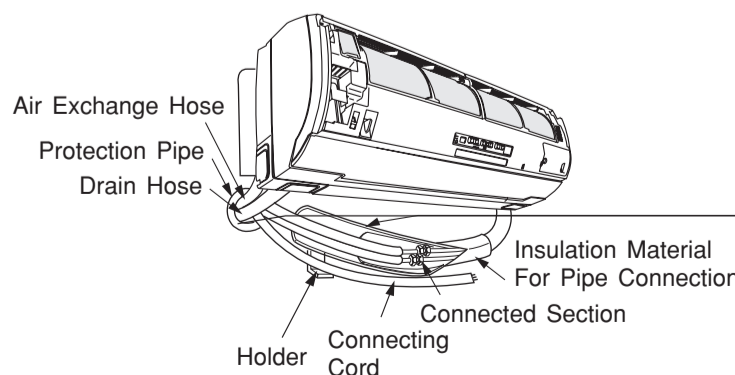
Please Bend At A Small Radius To Form An Arc



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 forwards.

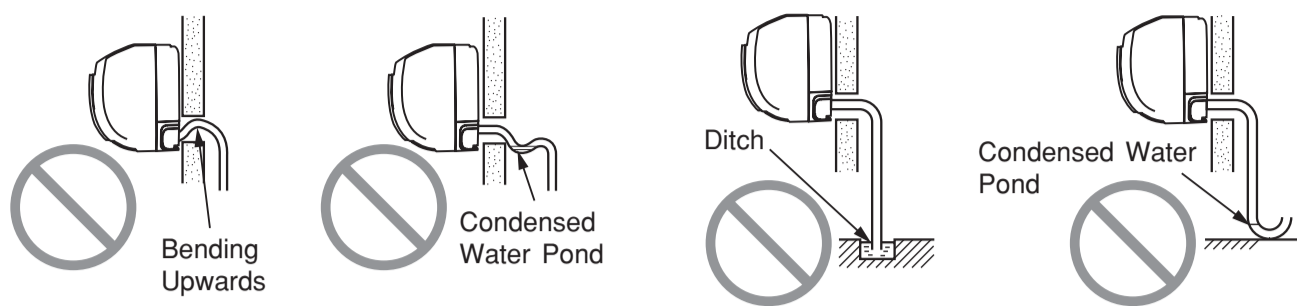
- Place the drain hose through the hole on the wall.
- Insulate the connecting portion of coolant pipe with insulator.
- Connect the power cord.
- After adjustment, the power cord and coolant pipes are placed into the space available under the indoor unit.
- The projection of indoor unit must hook to the mounting plate.



2 Installation Of Drain Hose

CAUTION

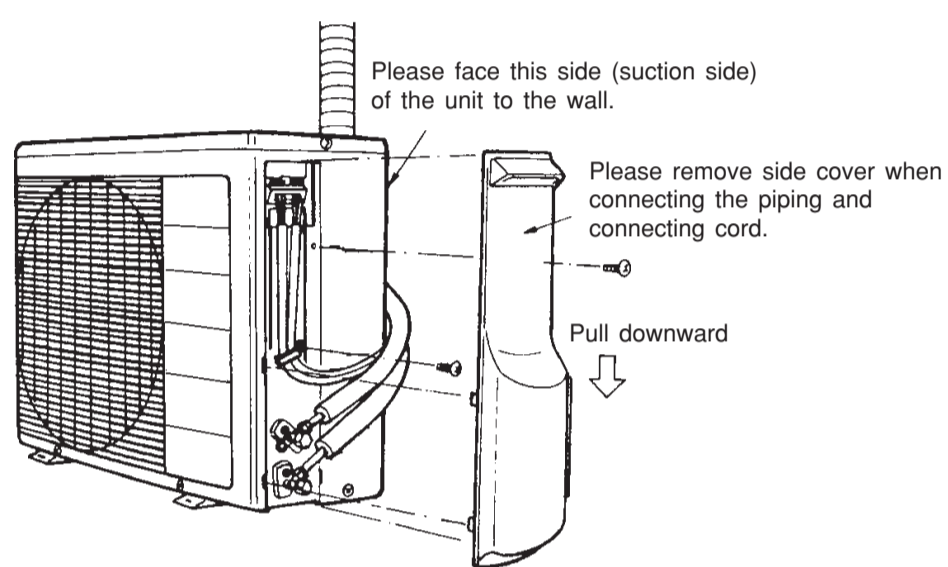
Be sure that the drain hose is not loosely connected or bent.



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

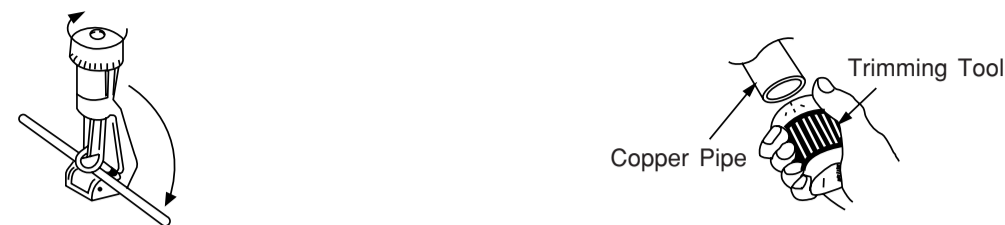
OUTDOOR UNIT

- 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 side cover, please pull the handle after undoing the hook by pulling it downward.



1 Preparation of Pipe

- Use a pipe cutter to cut the copper pipe.



CAUTION

- Jagged edge will cause leakage.
- Point the side to be trimmed downwards during trimming to prevent copper chips from entering the pipe.

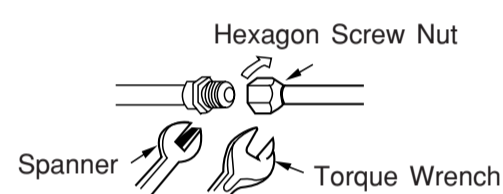
- Before flaring, please put on the hexagon screw cap.



Outer Diameter (ø)	A (mm)	
	Imperial flaring tool	Rigid flaring tool
6.35 (1/4")	0.8 - 1.5	0 - 0.5
12.7 (1/2")	1.0 - 1.8	0 - 0.5

2 Pipe Connection

- Please be careful when bending the copper pipe.
- Applied frozen grease to the connection points and then screw in manually. After that, use a torque wrench to tighten the connection.



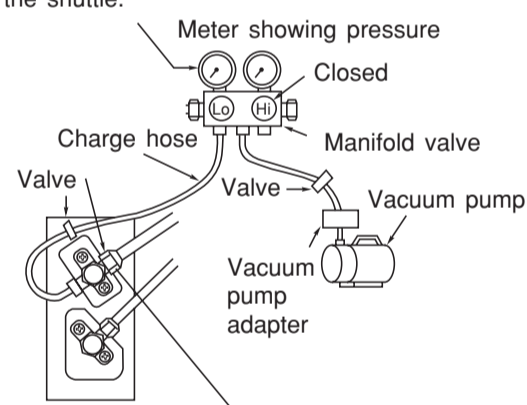
	Outer diameter of pipe (ø)	Torque N.m (kgf • cm)
Small diameter side	6.35 (1/4")	13.7 - 18.6 (140 - 190)
Big diameter side	12.7 (1/2")	44.1 - 53.9 (450 - 550)
Valve head cap		19.6 - 24.5 (200 - 250)
Valve core cap		12.3 - 15.7 (125 - 160)

1 Removal Of Air From The Pipe And Gas Leakage

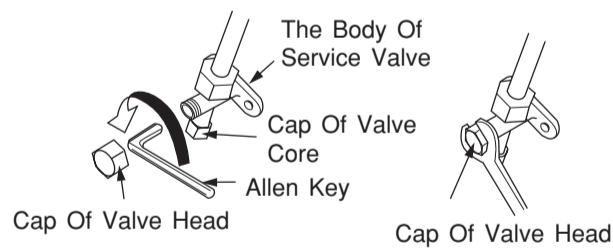
Procedures of using Vacuum Pump for Air Removal

- As shown in figure on the right, remove the cap of valve head and valve core and then connect them to the vacuum pump and sub-division valve.
- Fully tighten the "Hi" shuttle of the sub-division valve and completely unscrew the "Lo" shuttle. Run the vacuum pump for about 10-15 minutes, then completely tighten the "Lo" shuttle and switch off the vacuum pump.
- Completely unscrew the spindle of the service valve (at 2 places) in anti-clockwise direction to allow the flow of coolant (using Allen key).
- Remove the connection pipe and tighten the cap of valve head. The task is then completed.

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



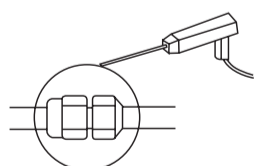
When pumping starts, slightly loosen the flare nut to check of air sucked in. Then tighten the flare nut.



Gas Leakage Inspection

Please use gas leakage detector to check if leakage occurs at the connection of Hexagon screw nut as shown on the right.

If gas leakage occurs, further tighten the connection to stop leakage.

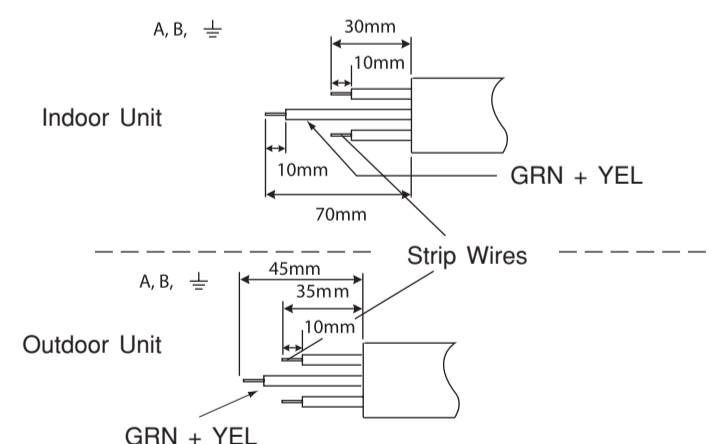
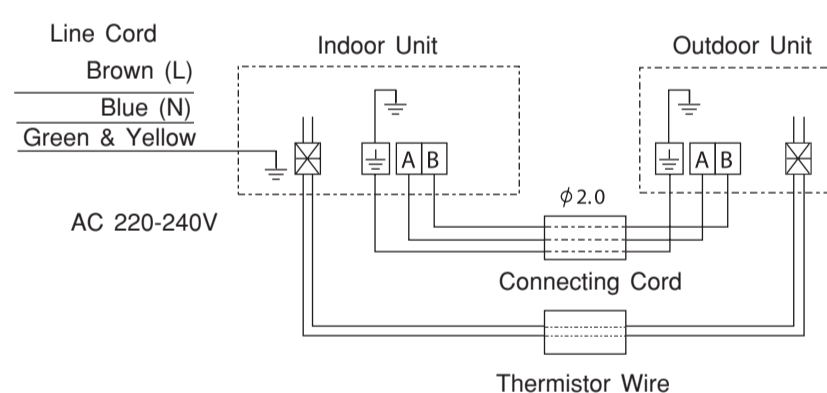


AIR REMOVAL

WARNING • THIS APPLIANCE MUST BE EARTHED.

Power supply shall be connected at the rated voltage, otherwise the unit will be broken or could not reach the specified capacity.

Procedures of Wiring



Detail of cutting the connecting cord

To remove the connecting wires for the indoor unit, please remove the low cover panel in front of the unit.

CONNECTION OF POWER CORD

WARNING

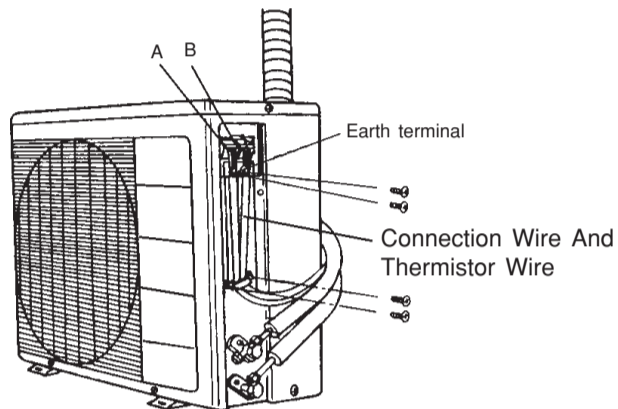
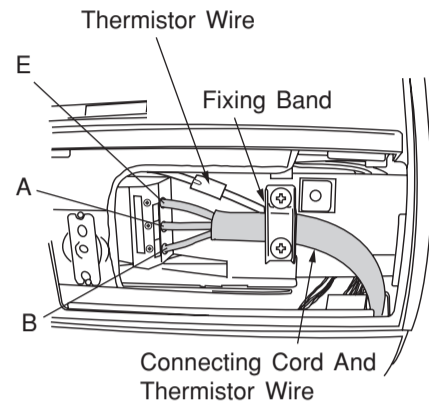
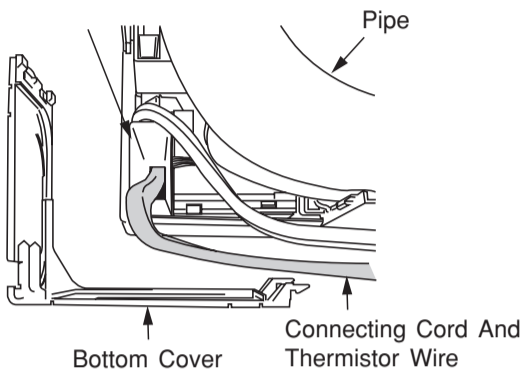
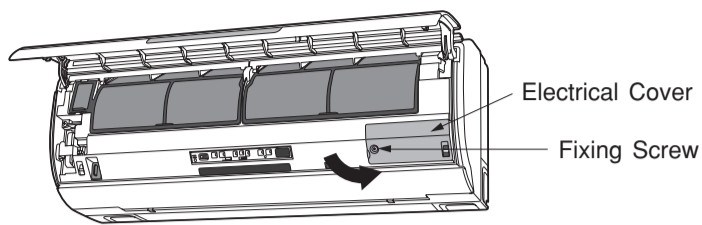
- The naked part of the wire core should be 14 mm and the insulated part of the wire must be push into the terminal for 3 - 4 mm. Then try to pull the individual wire to check if the contact is tight. Improper insertion may burn the terminal.
- Be sure to use only wire specified for the use of air-conditioner.
- Please refer to the installation manual for wire connection and the wiring technique should meet the standards of electrical installation.
- There is a AC voltage drop between the A, B terminals if the power is on. Therefore, be sure to remove the plug from its socket.

Wiring Of The Indoor Unit

- For wire connection of the Indoor unit, you need to remove front panel and electrical cover.

Method to Remove Electrical Cover

- Remove the screw and electrical cover.
- Insert the connecting cord (A, B) and thermistor wire from the bottom of unit.
- Fixed the wire to terminal wires firmly as shown in figure below.



IMPORTANT

Fuse Capacity
15A time delay fuse

Wiring Of The Outdoor Unit

- Please remove the side cover for wire connection.



WARNING

- You may not be able to close the side cover due to the connecting cord, under such situation, please press against the wait of side cover to fix it.
- Be sure that the hooks (2 places) are plugged in. Otherwise, water leakage may occur and this causes short circuit or faults.

3 Earth Line And Circuit Breaker

CAUTION

- The earth line terminal of the outdoor unit is below the service valve.
- To avoid short circuit, it is necessary to install circuit breaker depending on the mounting location of the unit.
- Do not place earth line near the following objects:
 - Water pipe
 - Gas pipe – There is danger of catching fire.
 - The earth line of lightning conductor and telephone – short circuit may occur during lightning.

4 Power Source And Operation Test

Power Source

WARNING

- Do not alter the plug of power cord.
- Do not make extension to the power cord.

CAUTION

- Please use a new socket. Accident may occur due to the use of old socket 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 with U-shape nail.

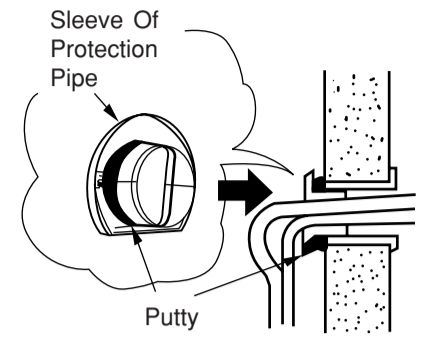
Operation Test

- 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.

1 Insulation and Maintenance of Pipe

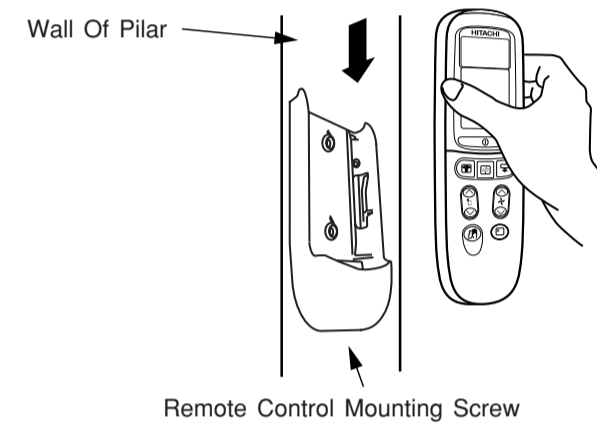
- The connected terminals should be completely sealed with heat insulator and then tied up with rubber strap.
- Please tie the pipe and power line together with plastic tape as shown in the figure of installation of both the indoor and outdoor units. Then fix their position with holders.
- To enhance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

Insulation Material For Pipe Connection



2 Installation Of Remote Control

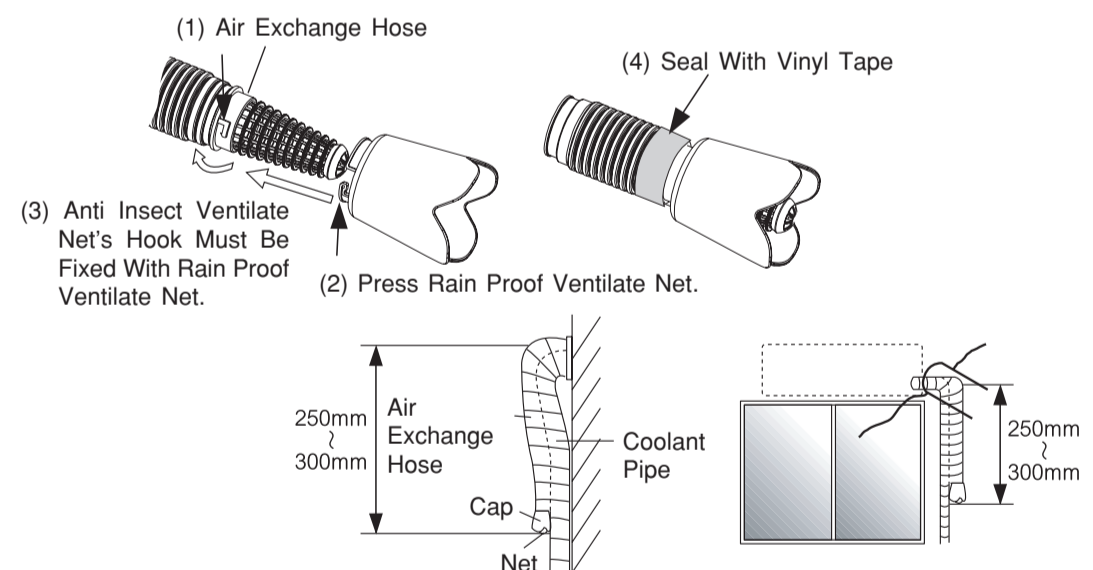
- The remote controller can be placed in its holder which is fixed on wall or beam.
- To operate the remote controller at its holder, please ensure that the unit can receive signal transmitted from the controller at the place where the holder is to be fixed. The unit will beep when signal is received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



FINAL STAGE OF INSTALLATION

1 Air Exchanger's End Treatment

- When not using protection cap.
 - Make sure the air exchanger hose and end of rain ventilate nets gap is 230~280mm from wall.
 - If air exchanger hose directly bend downward from hole, make sure the cutting is 250~280mm from wall.
 - If air exchanger hose directly connect to outdoor, cut 250~280mm from the bend point.
 - Seal the anti insect ventilate net and rain proof ventilate net which suits with air exchanger hose by using vinyl 1 tape.
 - Fix drain hose with tape. Make sure the exit is facing downward.

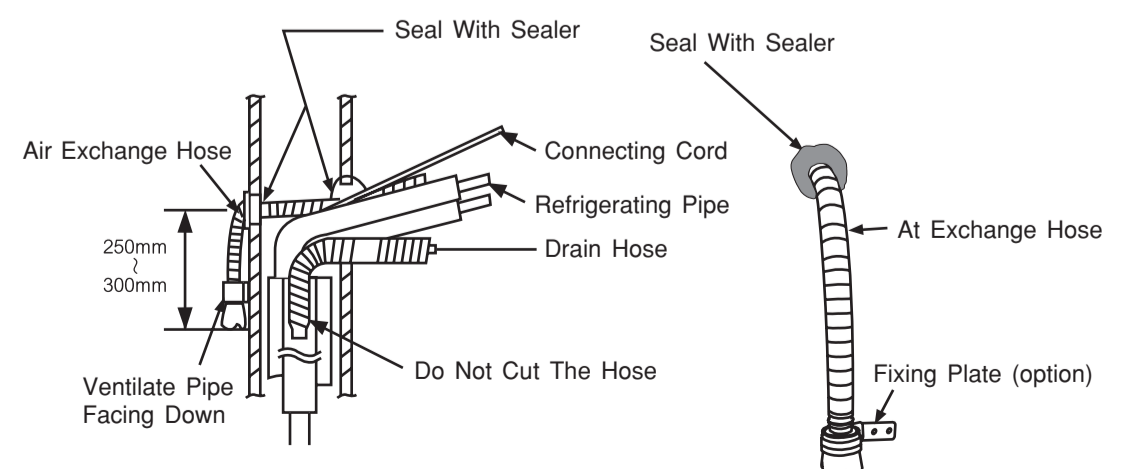


CAUTION

- If gap until end of air exchanger is too small and air exchanger end is not fix downward, there is possibility that the rain is enter to rain.
- At strong wind area and side area, set is longer.

2 To Fix Ventilator Pipe Through Wall

- In case hole can be opened from outside wall.
 - Diameter hole is $\phi 40$.
 - Air exchanger hose put outside, fix anti-insect ventilate net and rain proof ventilate net with vinyl tape.
 - Fix the air exchanger facing downward with fixing plate.



FINAL TREATMENT