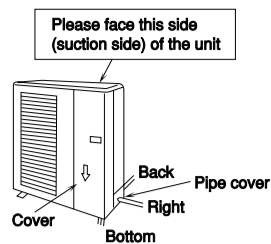


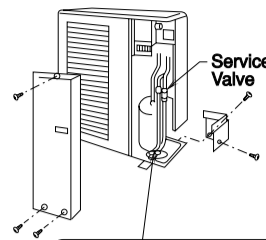
1 Installation of Outdoor Unit

- Mount the outdoor unit on stable ground to prevent vibration and increase of noise level.
- Remove 4 screws that fixed the cover and pull the cover downward to remove it.
- Decide the location for piping after sorting out the different types of pipe available.



Preparation to Install Refrigerating Pipe

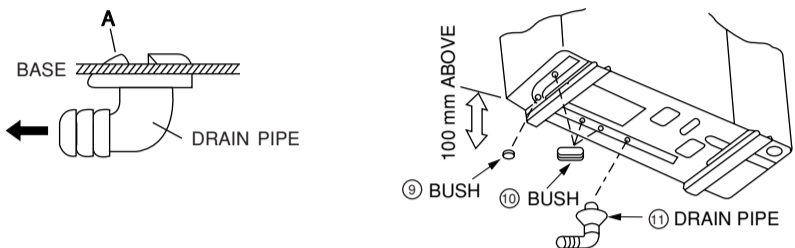
- Refrigerating pipe can be installed in 3 directions as in figure. Make hole at the refrigerating pipe cover and cabinet where the pipe passes. After removing the refrigerating pipe cover from unit, remove by using cutter as following the guideline at the back surface or using screw driver. Smooth the edge using cutter etc.
- Place the refrigerating pipe cover to prevent from rain etc. to penetrate cabinet. Assure that no gap at where the pipe passes.
- Bend pipe at smallest R as possible.



CAUTION
Arrange the pipes so as not to touch the internal pipe or sound proof material.

CONDENSED WATER DISPOSAL OF OUTDOOR UNIT

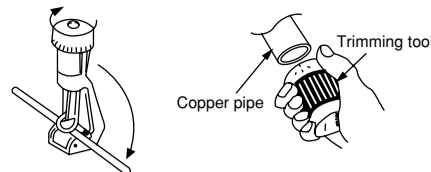
- There are holes on the base of Outdoor unit for condensed water to exhaust.
- In order to flow condensed water to the drain, the unit is installed on a stand or a block so that the unit is 100mm above the ground as shown figure. Join the drain pipe to one hole.
- At first insert one portion of the hook to the base (Portion A), then pull the drain pipe in the direction shown by the arrow while inserting the hook into the base. After installation, check whether the drain pipe cling to the base firmly.



- When using in cold region, etc. In cold region with severe cold climate and heavy snow, water discharged from heat exchanger freeze on the base surface and this may affect drainage. In such a region, remove bush on the bottom face of outdoor unit for better drainage. When using drainpipe, consult our dealer.

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 flare nut.



- Please use exclusive tool

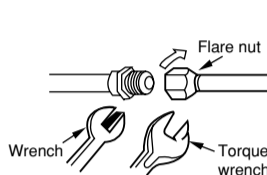
Outer Diameter (mm)	A (mm)	
	Imperial flaring tool	Rigid flaring tool
6.35	0.8 ~ 1.5mm	0 ~ 0.5mm
15.88	1.0 ~ 2.0mm	0 ~ 1.0mm

2 Pipe Connection

CAUTION

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

- Please be careful when bending the copper pipe.
- Screw in manually while adjusting the center. After that, use of torque wrench to tighten the connection.

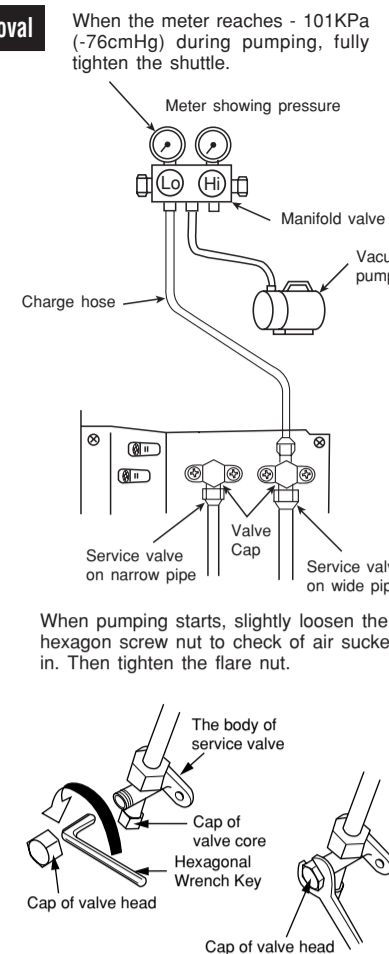


	Outer dia. of pipe	Torque N·m (kgf · cm)
Small dia. side	6.35 (1/4")	13.7 - 18.6 (140 - 190)
Large dia. side	15.88 (5/8")	49 - 58.8 (500 - 600)
Valve head cap	Small dia. side 6.35 (1/4")	19.0 - 21.0 (194 - 214)
	Large dia. side 15.88 (5/8")	29.0 - 31.0 (296 - 316)
Valve core cap		9.0 (92)

3 Removal Of Air From The Pipe And Gas Leakage Inspection

Procedures of using Vacuum Pump for Air Removal

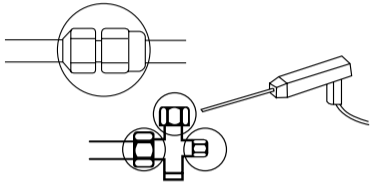
- As shown in right figure, remove the cap of valve core. Then, connect the charge hose. Remove the cap of valve head. Connect the vacuum pump adapter to the vacuum pump and connect the charge hose to the adapter.
- Fully tighten the "Hi" shuttle of the manifold valve and completely unscrew the "Lo" 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 Hexagonal Wrench key).
- Remove the charge hose and tighten the cap of valve head. Check the cap's periphery if there is any gas leakage. The task is then completed.



Gas Leakage Inspection

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

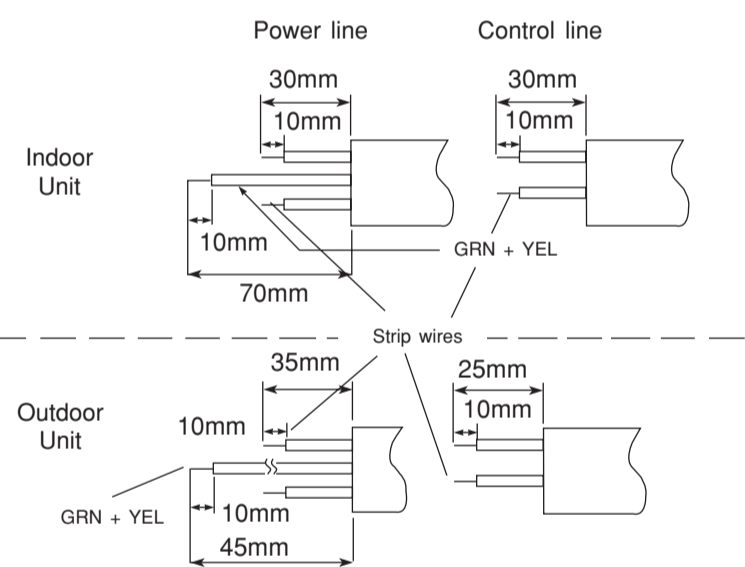
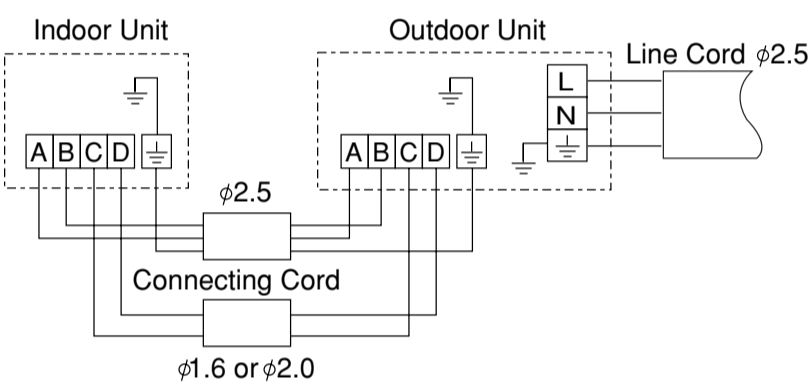
If gas leakage occurs, further tighten the connection to stop leakage.



WARNING • THIS APPLIANCE MUST BE EARTHED.

Procedures of Wiring

Power is supplied from Outdoor Unit



WARNING

- The naked part of the wire core should be 10 mm and 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 power cables approved from the authorities in your country. For example in Germany: Cable type: NYM 3x1.5mm², (fuse = 30A time delay)
- Please refer to the installation manual for wire connection to the terminals of the units. The cabling must meet the standards of electrical installation.
- There is a AC voltage of 240V between the L and N terminals. Therefore, before servicing, be sure to remove the plug from the AC outlet or switch off the main switch.

Wiring Of The Indoor Unit

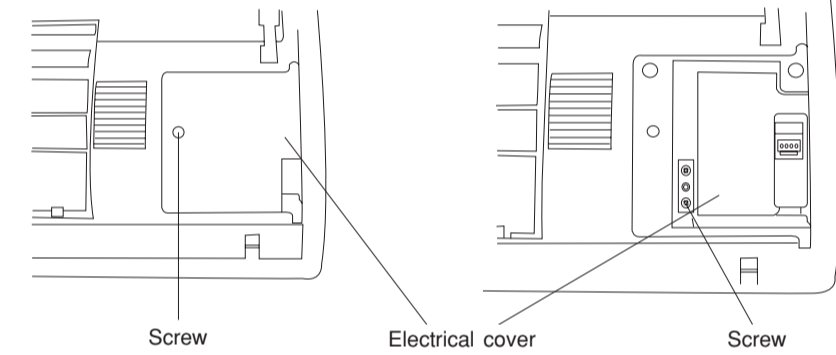
- For wire connection of the Indoor unit, you need to remove front panel and electrical cover.

Method to remove front panel

- Refer to "FINAL STAGE OF INSTALLATION - How to Remove The Front Cover".

Method to remove electrical cover

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



Wiring of The Outdoor Unit

- Please remove the side cover for wire connection.

WARNING

- If you cannot attach the side cover due to the connecting cord, press the connecting cord in direction to the front panel to fix it.
- Be sure that the hooks of the side cover is fixed in certainly. Otherwise water leakage may occur and this causes short circuit or faults.
- The connecting cord should not touch to service valve and pipes. (It becomes high temperature in heating operation.)

Checking for the electric source and the voltage range

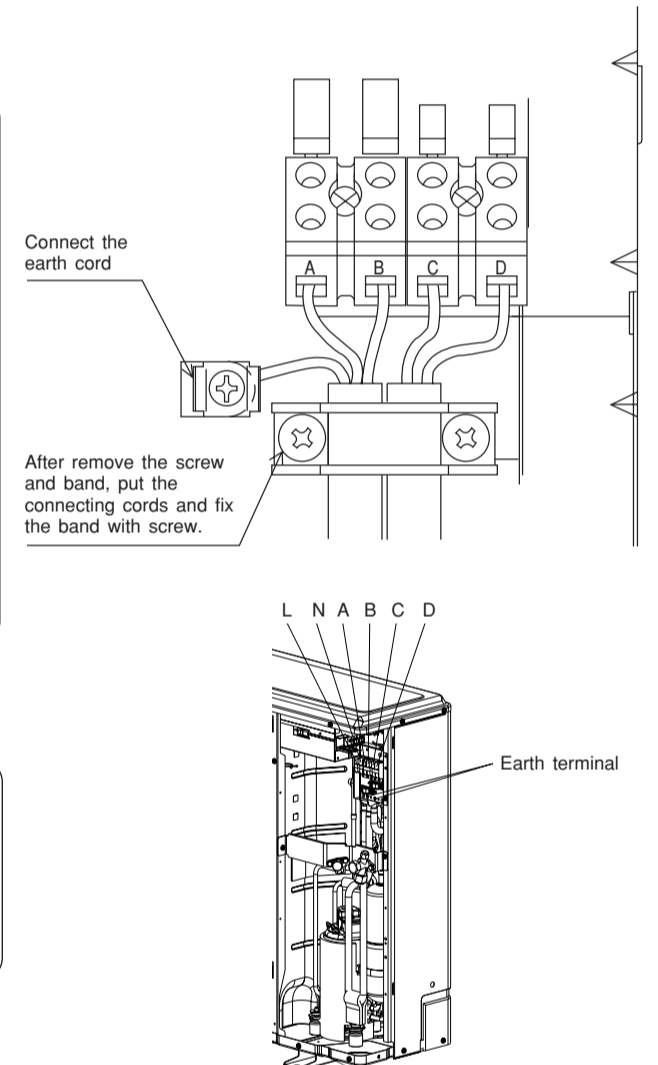
- Before installation, the power source must be checked and necessary wiring work must be completed. To make the wiring capacity proper, use the wire gauges list below for the lead-in from a pole transformer and for the wiring from a switch board of fuse box to the main switch and outdoor unit in consideration of the locked rotor current.

IMPORTANT

Cable length	Wire cross-section
up to 15m	2.5mm ²
up to 25m	4.0mm ²

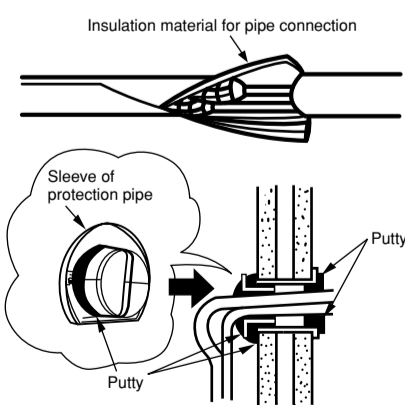
IMPORTANT

Fuse Capacity
30A time delay fuse



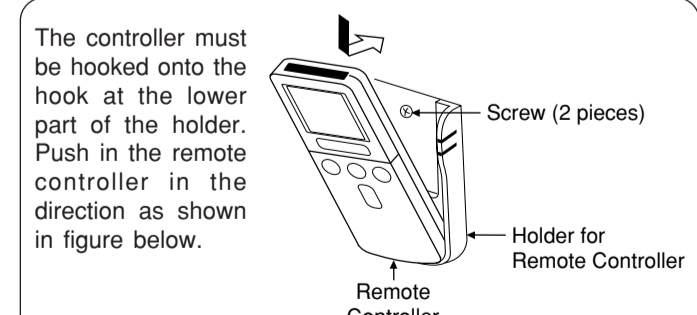
1 Insulation And Maintenance Of Pipe Connection

- 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 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 insulation pipe.
- Completely seal any gap with putty.



2 Installation Of Remote Controller

- 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 fluorescent 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.



How to Remove The Front Cover

- Open the front panel.
 - Please remove and attach the front panel by both hands.
- Remove the filters.
 - After opening the front panel by both hands.
 - Undo the right arm while pushing it inside.
 - Slide the front panel to right as shown in figure. Then remove while pulling it to front.
 - Remove the screw and electrical cover, disconnect the wire connector from connector housing.
- Remove the caps and screws at the lower portion of the front cover.
 - Remove the filters.
 - Remove the caps and screws at the lower portion of the front cover.
- Pull the front cover upward as far as the location where the lower portion of the front cover is on the deflector.
 - Remove while pulling the front cover in direction to arrow as shown in figure to hold the both sides of front cover.

How to Attach the Front Cover

- After covering the front cover to the unit, certainly hook at the upper portion (four places). Then, check that the drain pan is certainly attached. Push the front cover in the direction of arrow at the portion of hooks.
 - Hook the front cover at lower portion to the drain pan and then fix them by screws and attach the caps.
 - Connect the wire connector, fixed the screw and electrical cover.
 - Attach the front panel.
- Certainly insert the left shaft of the front panel to the hole of the front cover. Next insert the right shaft as same as the left.
- Attach the filters which are placed the surface written "FRONT" up.
- After attaching the filters, push the front panel at three arrow portion as shown in figure and close it.

3 Power Source And Operation Test

Power Source

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.