website http://www.lgservice.com
email http://www.lgservice.com/techsup.html

LG

LG
Multi type Air Conditioner
(Convertible Type)

INSTALLATION MANUAL

IMPORTANT

- **Please read this installation manual completely before installing the product.**
- **When the power cord is damaged, replacement should be performed by authorized personnel only.**
- **Installation work must be performed in accordance with the national wiring standards by authorized personnel only.**
- **Please retain this installation manual for future reference after reading it thoroughly.**

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Required Parts

- ❑ Four type "A" screws & plastic anchors
- ❑ Connecting cable
- ❑ Installation guide map
- ❑ Pipes: Gas side.....3/8", 1/2"
  Liquid side.....1/4"
- ❑ Insulation materials
- ❑ Additional drain pipe (Outer diameter.....15.5mm)
- ❑ Two type "B" screws

Required Tools

- ❑ Level gauge
- ❑ Screw driver
- ❑ Electric drill
- ❑ Hole core drill (ø25mm, ø45mm, ø70mm)
- ❑ Horizontal meter
- ❑ Flaring tool set
- ❑ Specified torque wrenches 1.8kg.m, 4.2kg.m, 5.5kg.m, 6.6kg.m (different depending on model No.)
- ❑ Spanner.....Half union
- ❑ A glass of water
- ❑ Screw driver
- ❑ Hexagonal wrench(4mm)
- ❑ Leak detector
- ❑ Vacuum pump
- ❑ Gauge manifold
- ❑ Owner's manual
- ❑ Thermometer
- ❑ Remote control holder

Safety Precautions

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

■ Be sure to read before installing the air conditioner.

■ Be sure to observe the cautions specified here as they include important items related to safety.

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

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠CAUTION	This symbol indicates the possibility of injury or damage to properties only.

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

⃠	**Be sure not to do.**
❗	**Be sure to follow the instruction.**

⚠WARNING

■ Installation

Do not use a defective or underrated circuit breaker. Use this appliance on a dedicated circuit.

• There is risk of fire or electric shock.



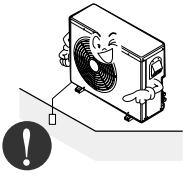
For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

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



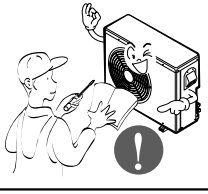
Always ground the product.

• There is risk of fire or electric shock.



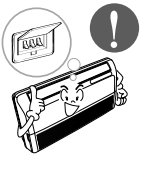
Install the panel and the cover of control box securely.

• There is risk of fire or electric shock.



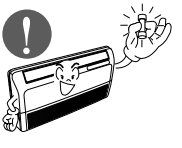
Always install a dedicated circuit and breaker.

• Improper wiring or installation may cause fire or electric shock



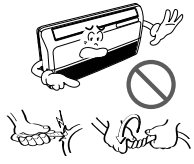
Use the correctly rated breaker or fuse.

• There is risk of fire or electric shock.



Do not modify or extend the power cable.

- There is risk of fire or electric shock.



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

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



Be cautious when unpacking and installing the product.

- Sharp edges could cause injury. Be especially careful of the case edges and the fins on the condenser and evaporator.



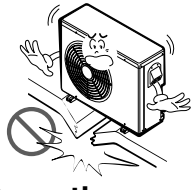
For installation, always contact the dealer or an Authorized Service Center.

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



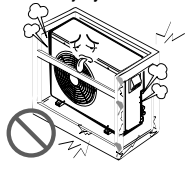
Do not install the product on a defective installation stand.

- It may cause injury, accident, or damage to the product.



Be sure the installation area does not deteriorate with age.

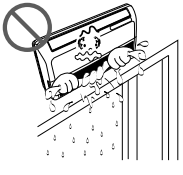
- If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.



■ Operation

Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.

- Moisture may condense and wet or damage furniture.



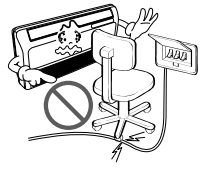
Take care to ensure that power cable could not be pulled out or damaged during operation.

- There is risk of fire or electric shock.



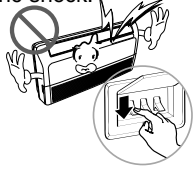
Do not place anything on the power cable.

- There is risk of fire or electric shock.



Do not plug or unplug the power supply plug during operation.

- There is risk of fire or electric shock.



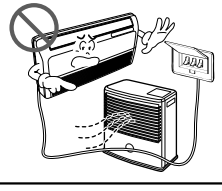
Do not touch(operate) the product with wet hands.

- There is risk of fire or electrical shock.



Do not place a heater or other appliances near the power cable.

- There is risk of fire and electric shock.



Do not allow water to run into electric parts.

- It may cause There is risk of fire, failure of the product, or electric shock.



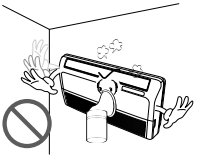
Do not store or use flammable gas or combustibles near the product.

- There is risk of fire or failure of product.



Do not use the product in a tightly closed space for a long time.

- Oxygen deficiency could occur.



When flammable gas leaks, turn off the gas and open a window for ventilation before turn the product on.

- Do not use the telephone or turn switches on or off. There is risk of explosion or fire



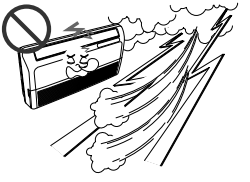
If strange sounds, or small or smoke comes from product. Turn the breaker off or disconnect the power supply cable.

- There is risk of electric shock or fire.



Stop operation and close the window in storm or hurricane. If possible, remove the product from the window before the hurricane arrives.

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



Do not open the inlet grill of the product during operation. (Do not touch the electrostatic filter, if the unit is so equipped.)

- There is risk of physical injury, electric shock, or product failure.



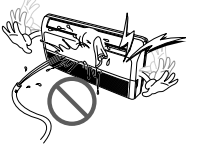
When the product is soaked (flooded or submerged), contact an Authorized Service Center.

- There is risk of fire or electric shock.



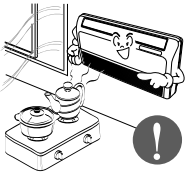
Be cautious that water could not enter the product.

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



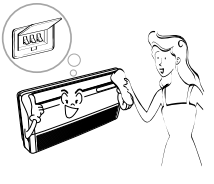
Ventilate the product from time to time when operating it together with a stove, etc.

- There is risk of fire or electric shock.



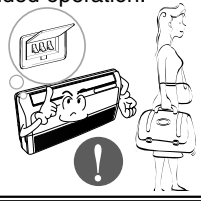
Turn the main power off when cleaning or maintaining the product.

- There is risk of electric shock.



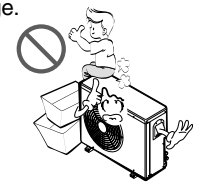
When the product is not be used for a long time, disconnect the power supply plug or turn off the breaker.

• There is risk of product damage or failure, or unintended operation.



Take care to ensure that nobody could step on or fall onto the outdoor unit.

• This could result in personal injury and product damage.

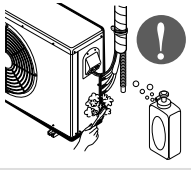


⚠CAUTION

■ Installation

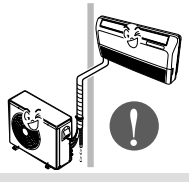
Always check for gas (refrigerant) leakage after installation or repair of product.

• Low refrigerant levels may cause failure of product.



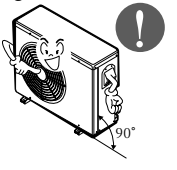
Install the drain hose to ensure that water is drained away properly.

• A bad connection may cause water leakage.



Keep level even when installing the product.

• To avoid vibration or water leakage.



Do not install the product where the noise or hot air from the outdoor unit could damage the neighborhoods.

• It may cause a problem for your neighbors.



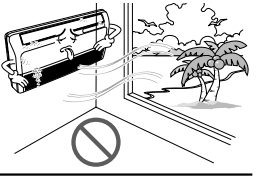
Use two or more people to lift and transport the product.

• Avoid personal injury.



Do not install the product where it will be exposed to sea wind (salt spray) directly.

• It may cause corrosion on the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.



■ Operation

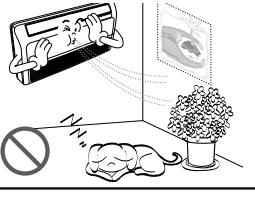
Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.)

• This could harm to your health.



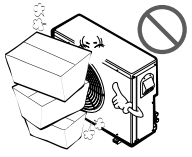
Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system.

• There is risk of damage or loss of property.



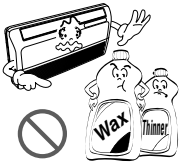
Do not block the inlet or outlet of air flow.

• It may cause product failure.



Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.

• There is risk of fire, electric shock, or damage to the plastic parts of the product.



Do not touch the metal parts of the product when removing the air filter. They are very sharp!

• There is risk of personal injury.



Do not step on or put anyting on the product. (outdoor units)

• There is risk of personal injury and failure of product.



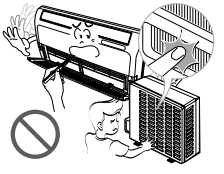
Always insert the filter securely. Clean the filter every two weeks or more often if necessary.

• A dirty filter reduces the efficiency of the air conditioner and could cause product malfunction or damage.



Do not insert hands or other objects through the air inlet or outlet while the product is operated.

• There are sharp and moving parts that could cause personal injury.



Do not drink the water drained from the product.

• It is not sanitary and could cause serious health issues.



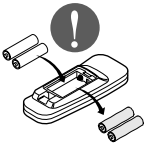
Use a firm stool or ladder when cleaning or maintaining the product.

• Be careful and avoid personal injury.



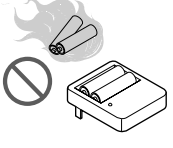
Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries.

• There is risk of fire or explosion



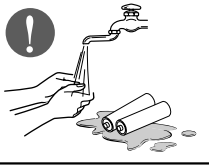
Do not recharge or disassemble the batteries. Do not dispose of batteries in a fire.

• They may burn or explode.



If the liquid from the batteries gets onto your skin or clothes, wash it well with clean water. Do not use the remote if the batteries have leaked.

• The chemicals in batteries could cause burns or other health hazards.



Introduction

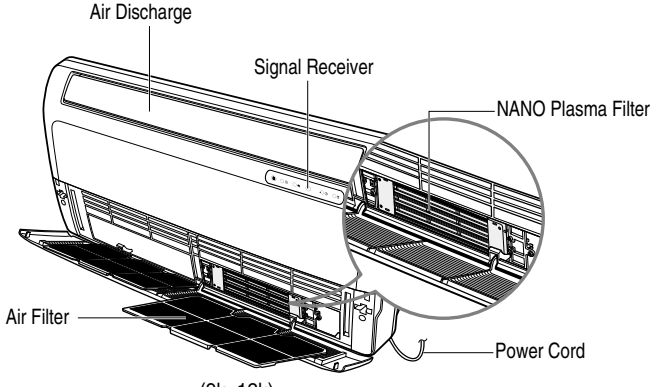
Symbols used in this Manual

This symbol alerts you to the risk of electric shock.

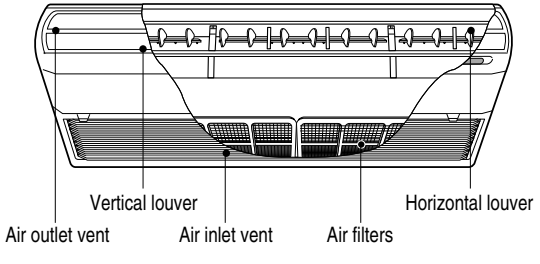
This symbol alerts you to hazards that may cause harm to the air conditioner.

NOTICE **This symbol indicates special notes.**

Features



(9k, 12k)

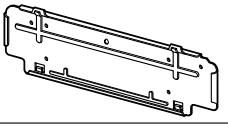
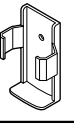


(18k, 24k)

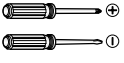
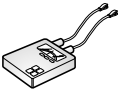
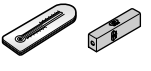
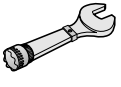
Installation

Read carefully, and then follow step by step.

Installation Parts

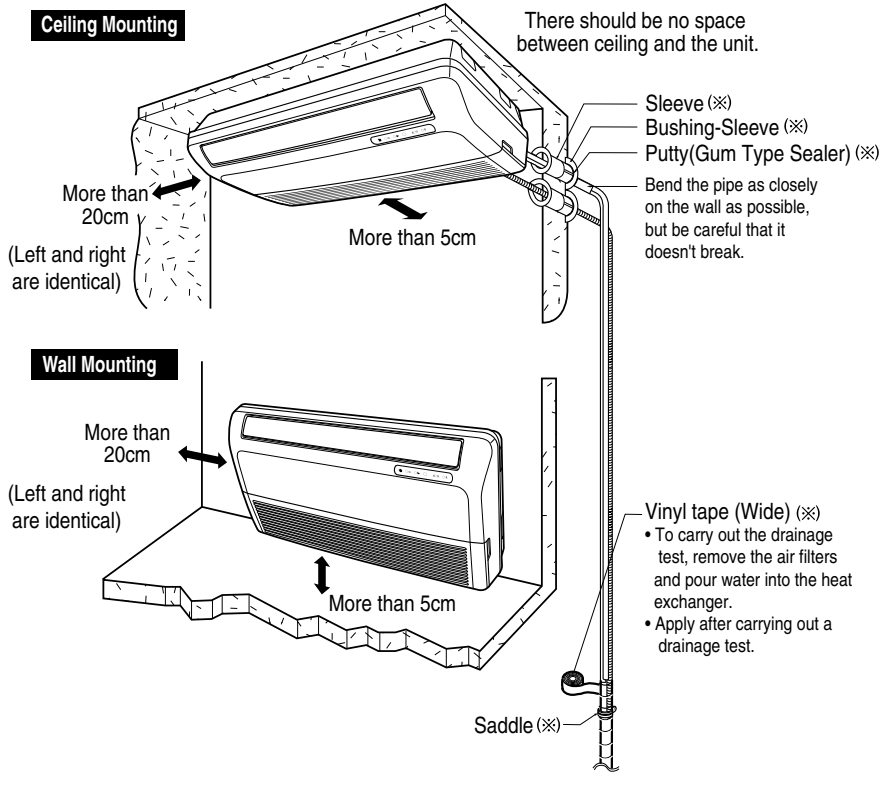
Installation plate	Type "A" screw and plastic anchor
 (9k, 12k)	
Type "B" screw	Remote control holder
	

Installation Tools

Figure	Name	Figure	Name
	Screw driver		Ohmmeter
	Electric drill		Hexagonal wrench
	Measuring tape, Knife		Ammeter
	Hole core drill		Gas-leak detector
	Spanner		Thermometer, Horizontal meter
	Torque wrench		Flaring tool set

Installation Map

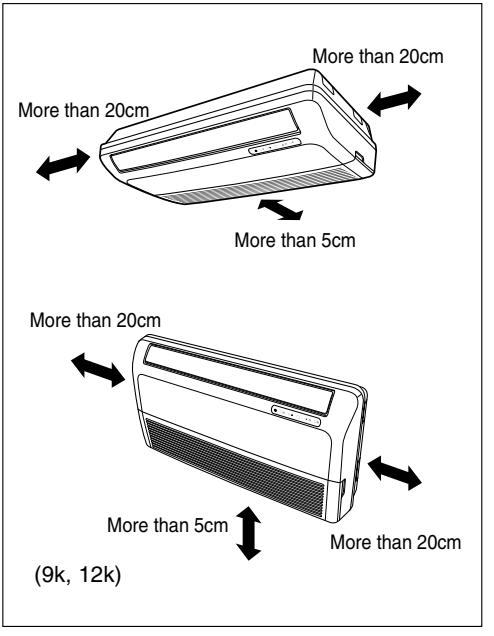
NOTICE Installation parts you should purchase. (※)

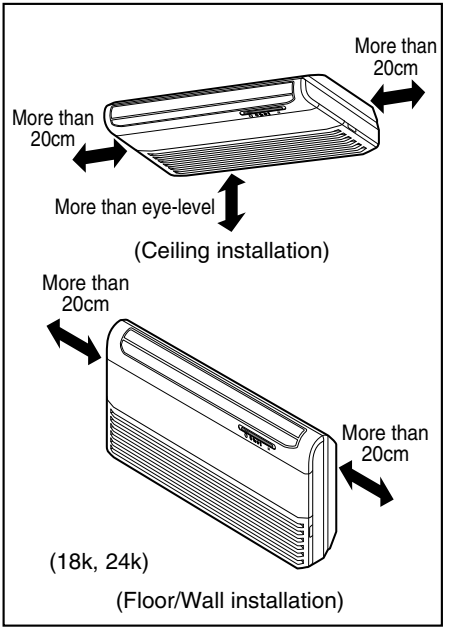


Select the best Location

Indoor unit

1. Do not have any heat or steam near the unit.
2. Select a place where there are no obstacles in front of the unit.
3. Make sure that condensation drainage can be conveniently routed away.
4. Do not install near a doorway.
5. Ensure that the interval between a wall and the left (or right) of the unit is more than 20cm. The unit should be installed as low as possible on the wall, allowing a minimum of 5cm from floor.
6. Use a stud finder to locate studs to prevent unnecessary damage to the wall.





Preparing Work for Installation(9k, 12k)

Open panel front

1. Remove the five screws.
2. Release the claws in the 3 places indicated.
3. Pull up the Front Panel.

Cover pipe and cover side remove

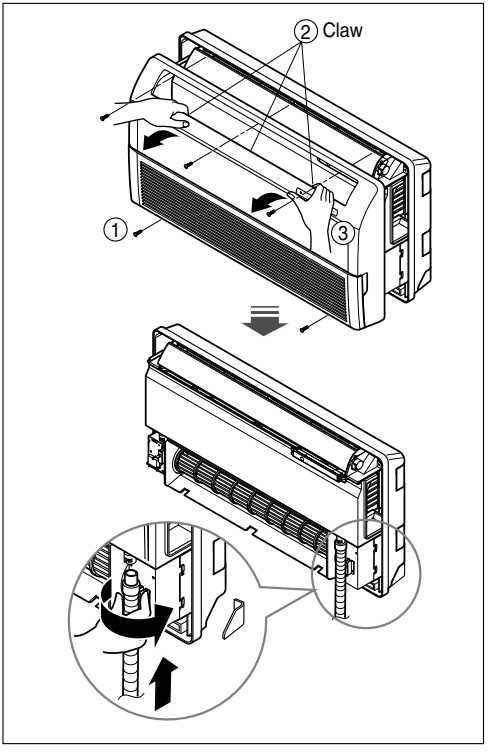
1. Pull up the side cover of desired connecting direction, then cover side is separated.
2. Pick the pipe hole of the side cover.

CAUTION: After removing the pipe hole, cut the burr for safety.

NOTICE When making pipe path through rear wall, you don't need to pick the pipe hole.

Drain hose junction

1. Remove the rubber stopple in the desired drain direction.
2. Insert drain hose into the handle of drain pan, and join drain hose and connecting hose according to the figure by.

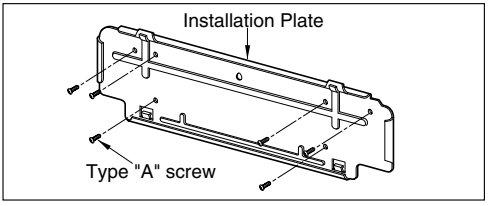


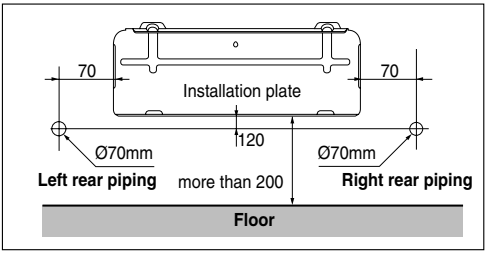
Mounting the installation plate(Wall Mounting) (9k, 12k)

The wall you select should be strong and solid enough to prevent vibration

1. Mount the installation plate on the wall with type "A" screws. If mounting the unit on a concrete wall, use anchor bolts.
• Mount the installation plate horizontally by aligning the centerline using a level.

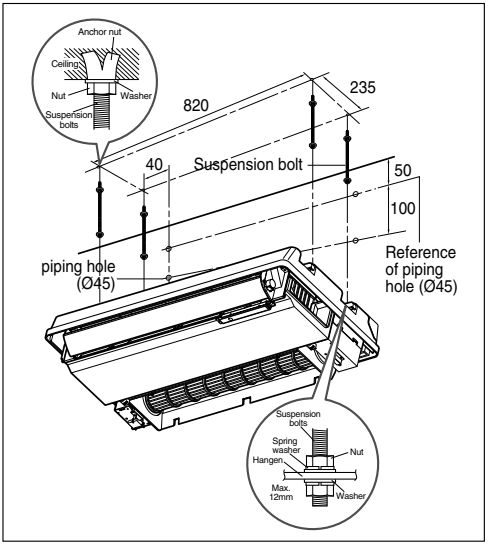
2. Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate-routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.

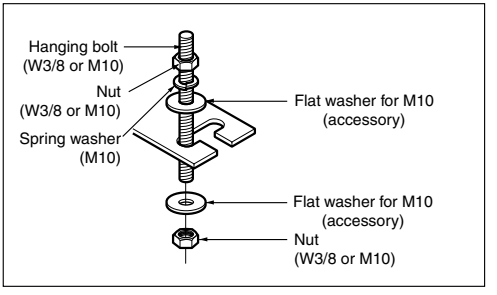




Mounting the anchor Nut & Bolt(Ceiling Mounting) (9k, 12k)

- Prepare 4 suspension bolts. (Each bolts length should be same.)
- Measure and mark the position for the Suspension bolts and the piping hole.
- Drill the hole for anchor nut on the ceiling.
- Insert the nuts and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
- Mount the suspension bolts to the anchor-nuts firmly.
- Secure the hangers onto the Suspension bolts (adjust level roughly.) using nuts, washers and spring washers.
- Adjust a level with a level gauge on the direction of left-right, back-forth by adjusting suspension bolts.
- Adjust a level on the direction of top-bottom by adjusting supension bolts. Then the unit will be declined to the bottomside so as to drain well.





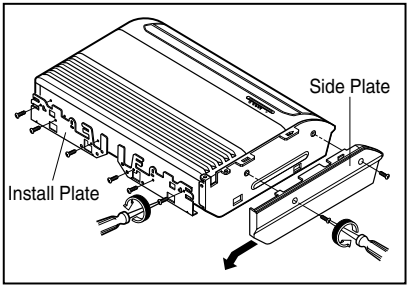
⚠CAUTION

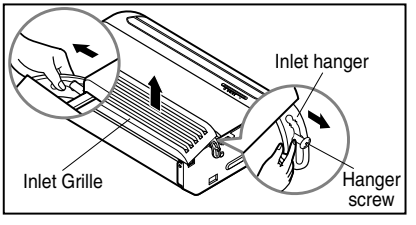
: Tighten the nut and bolt to prevent unit falling.

Installation on the ceiling(18k,24k)

■ *Before Installing, prepare Installation Plates*

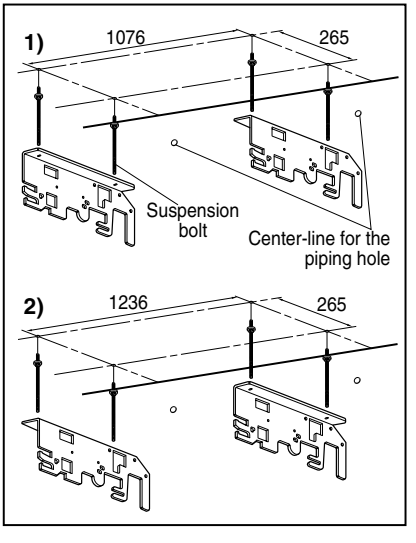
- 'Installation Plates' are attached at the bottom of indoor unit.
  Detach them by removing each 3 screws at both sides.
- Detach 'Side Plate (R,L)' by removing each 2 screws on both sides.
- Pull the upper right and left side of 'Inlet Grille' to the front, and it will stop at slightly tilted position.
- Unhook the 'Inlet hanger' from the 'Hanger screw' on the both left and right side.
- Detach the 'Inlet Grille' from the Indoor Unit.





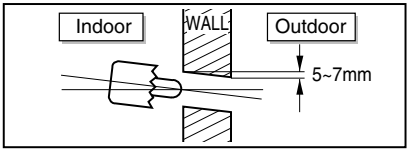
1) Installation on the ceiling

- Measure and mark the position for the Suspension bolts and the piping hole.
- Drill the hole for anchor nut on the ceiling.

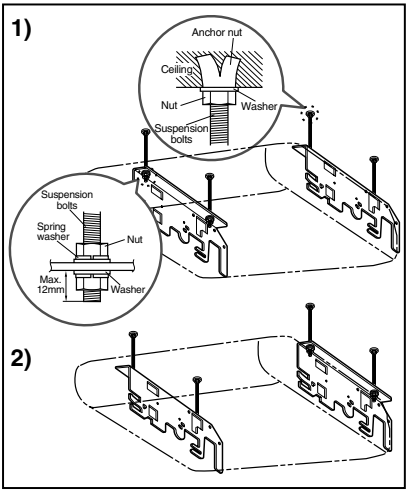


※ **Before secure the Installation Plates, select the bent direction of the Installion Plate to the inside or the outside according to the installation circumstances.**

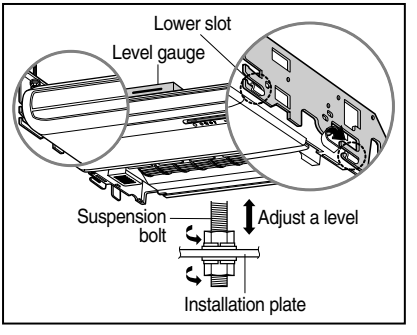
- Drill the piping hole on the wall slightly tilted to the outdoor side using a ø70 hole-core drill.

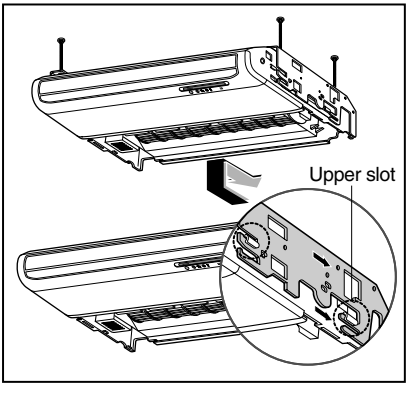


- Insert the nuts and washer onto the suspension bolts for locking the suspension bolts on the ceiling.
- Mount the suspension bolts to the anchor-nuts firmly.
- Secure the Installation plates onto the Suspension bolts (adjust level roughly.) using nuts, washers and spring washers.

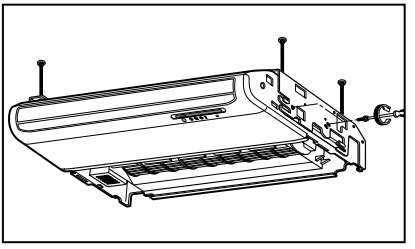


- Engage 2 hooks on the both left and right side of the unit to the lower slot of Installation Plates.
- Adjust a level with a level gauge on the direction of left-right, back-forth by adjusting suspension bolts.
- Move the hooks on the unit to the upper slot of Installation Plates. Then the unit will be declined to the bottomside so as to drain well.

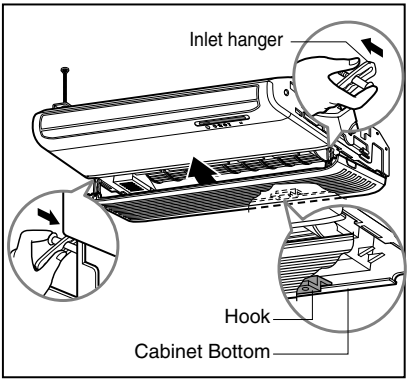




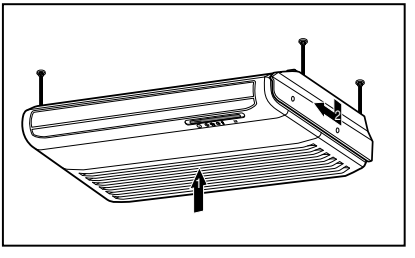
• Secure the unit to the Installation Plates with four M8 bolts and washers.

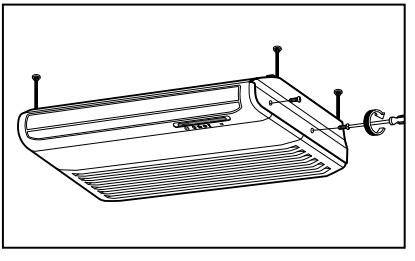


• Hook up the Inlet Grille Hook to the cabinet.
• Hang the Inlet Hanger to the screw.



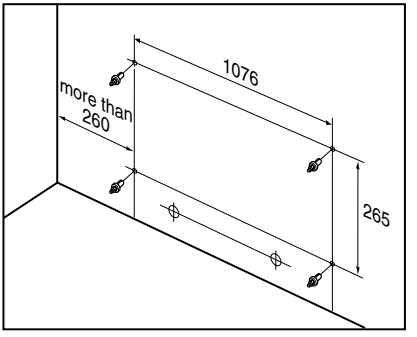
• Fit the projection hooks of the side plates to the 'Side Panel' and the 'Front Panel' by lifting it.
• Fasten the screws.



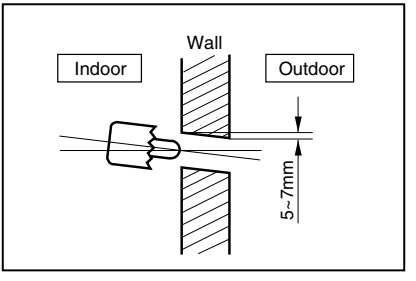


Installation on the wall(18k,24k)

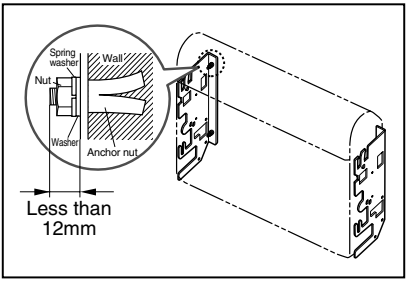
- Select and mark the position for fixing bolts and piping hole.
  Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- Drill the hole for anchor nut on the wall.



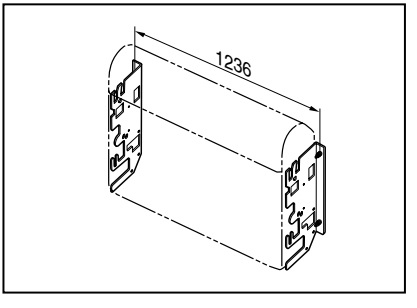
- Drill the piping hole on the wall slightly tilted to the outdoor side using a ø70 hole-core drill.



- Secure the 'Install Plate' onto the wall with four anchor bolts, washers and spring washers.



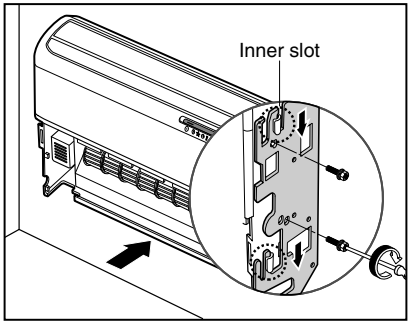
※ Before secure the Install Plates, select the bent direction of the 'Install Plate' to the inside or outside according to the installation circumstances.



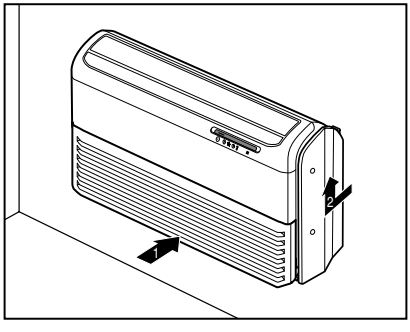
Install the Indoor unit onto Installation Plate.

- Insert 2 hooks on the both left and right side of the unit to the inner slot (wall side) of the Installation Plate.

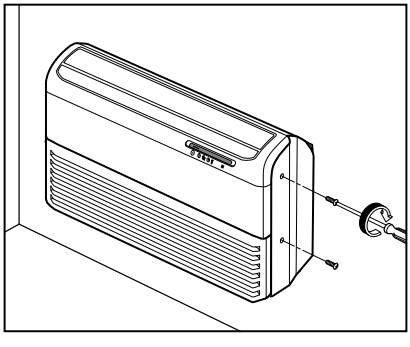
- Secure the unit to the Installation Plate with four M8 bolts and washers.



- Hook up the Inlet Grille Hook to the cabinet.
- Hang the Inlet Hanger to the screw.



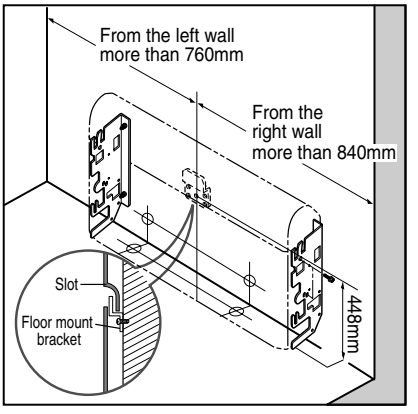
- Fit the projection hooks of the side plates to the 'Side Panel' and the 'Front Panel' by lifting it.
- Fasten the screws.



Installation on the floor(18k,24k)

Installation of Mount Bracket.

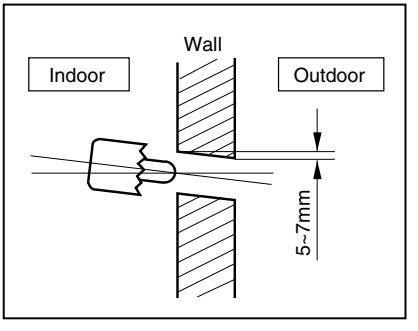
- Select and mark the position for Mount Brackets and the piping hole.
- Drill the hole for the anchor nut on the wall.
- Drill the piping hole using a ø70 hole-core drill.
- Secure the Mount Brackets on the wall with four M4 screws.



Install the indoor unit onto the Mount Brackets.

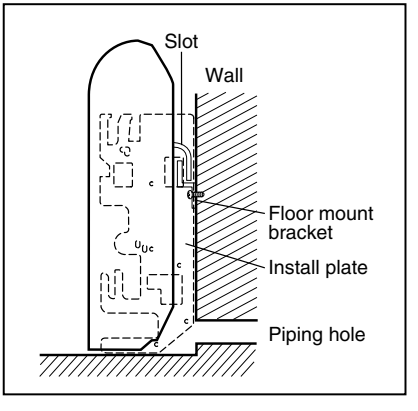
- Engage the slot at the back of the unit with Mount Bracket.

- Drill the piping hole with 70mm dia, hole core drill.
- Piping hole should be slightly slant to the outdoor side.



After Installing, reassemble detached parts.

- Hang the 'Inlet Grille' and hook the 'Inlet Hanger' to the Hanger Screw.
- Assemble the 'Side Plates(R,L)' with 2 screws on both left and right side.



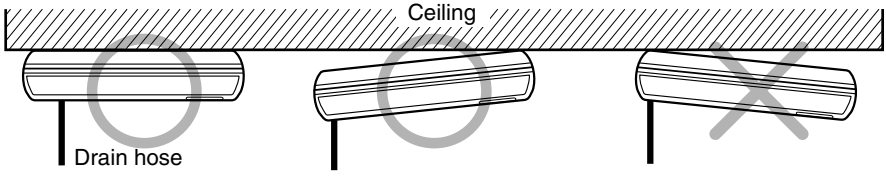
⚠CAUTION

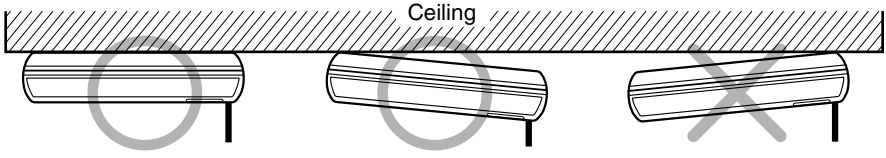
: Installation Information For Declination

1. **Install declination** of the indoor unit is very **important for the drain** of the convertible type air conditioner.
2. Minimum thickness of the insulation for the connecting pipe shall be 10mm.
3. If the Installation Plates are fixed to horizontal line, the indoor unit after installing will be declined to the bottomside.

Front of view

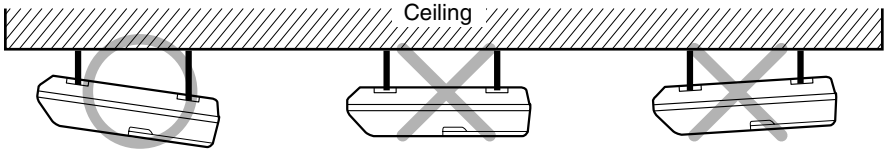
• The unit must be horizontal or declined to the drain hose connected when finished installation.





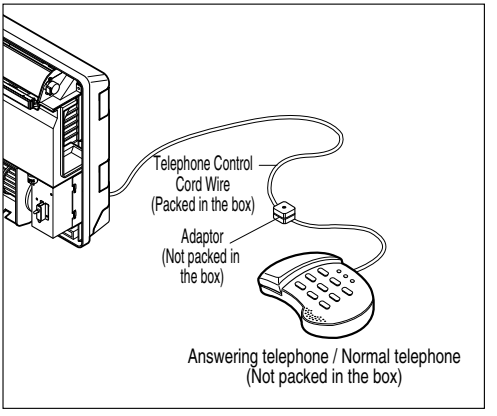
Side of view

• The unit must be declined to the bottomside of the unit when finished installation.



Installation instructions of telephone control(Optional)

- Open the Control Box Cover.
- Pass Telephone Control Cord Wire through the hole which the power cord goes through.
- Connect Telephone Control Cord Wire to the phone jack of telephone PCB of Control Box.
- Fix Telephone Control Cord Wire inside Control box so as not to disconnect.
- Close the Control Box Cover.

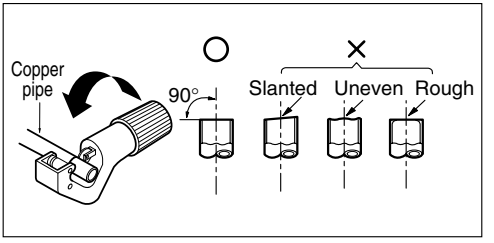


Flaring Work

Main cause for gas leakage is due to defect in flaring work. Carry out correct flaring work in the following procedure.

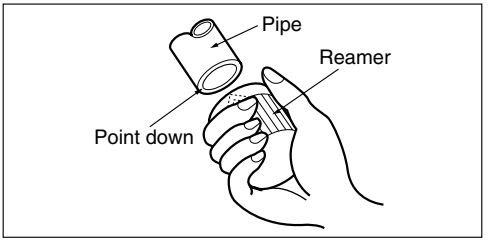
Cutting the pipes and the cable.

1. Use the piping kit accessory or the pipes purchased locally.
2. Measure the distance between the indoor and the outdoor unit.
3. Cut the pipes a little longer than measured distance.
4. Cut the cable 1.5m longer than the pipe length.



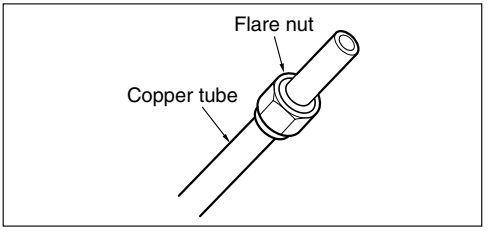
Removing burrs

1. Completely remove all burrs from the cut cross section of pipe/tube.
2. Put the end of the copper tube/pipe in a downward direction as you remove burrs in order to avoid dropping burrs into the tubing.



Putting nut on

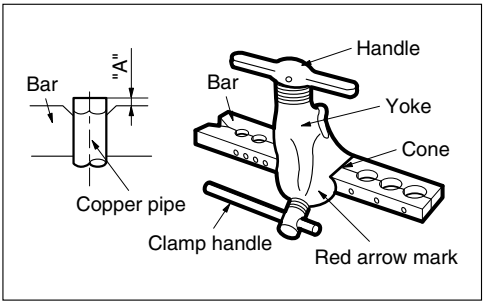
1. Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.
   (not possible to put them on after flaring work)



Flaring work

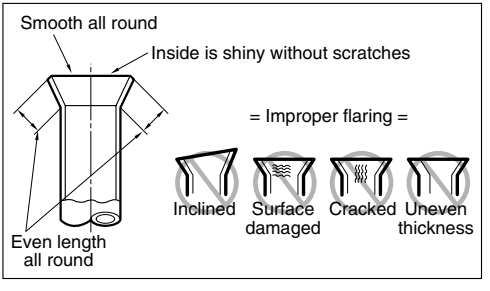
1. Firmly hold copper pipe in a die in the dimension shown in the table below.
2. Carry out flaring work with the flaring tool.

Outside diameter		A
mm	inch	mm
Ø6.35	1/4	0~0.5
Ø9.52	3/8	0~0.5
Ø12.7	1/2	0~0.5
Ø15.88	5/8	0~1.0
Ø19.05	3/4	1.0~1.3



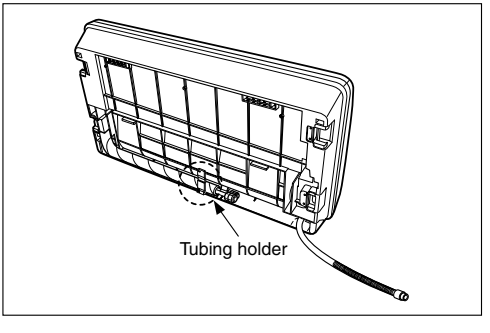
Check

1. Compare the flared work with the figure by.
2. If a flared section is defective, cut it off and do flaring work again.



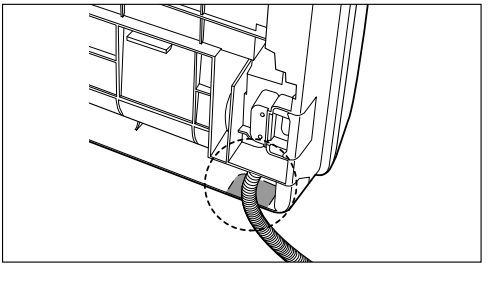
Connecting of Piping - Indoor(9k, 12k)

- Preparing the indoor unit's piping and drain hose for installation through the wall.
- Remove the plastic tubing retainer(see illustration below) and pull the tubing and drain hose away from chassis.
- Replace the plastic tubing holder in the original position.(Optional)

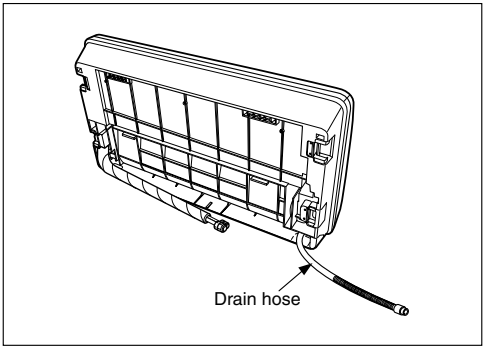


⚠CAUTION

: When install, make sure that the remaining parts must be removed clearly so as not to damage the piping and drain hose, especially power cord and connecting cable.



Route the indoor tubing and the drain hose in the direction of rear left or right

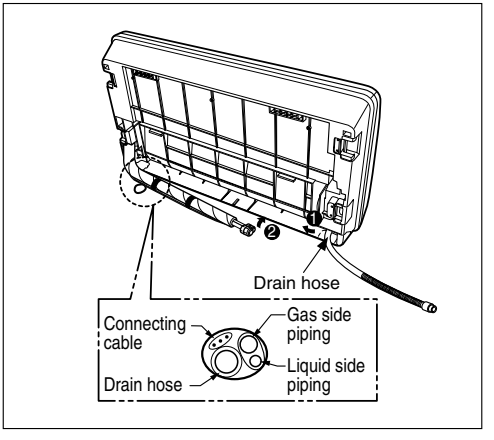


Insert the connecting cable into the indoor unit from the outdoor unit through the piping hole.

1. Do not connect the cable to the indoor unit.
2. Make a small loop with the cable for easy connection later.

Tape the tubing, drain hose and the connecting cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.

NOTICE **If the drain hose is routed inside the room, insulate the hose with an insulation material* so that dripping from "sweating"(condensation) will not damage furniture or floors.**
***Foamed polyethylene or equivalent is recommended.**



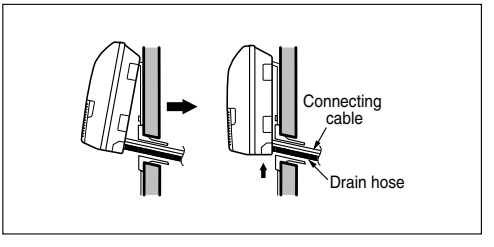
⚠CAUTION

: Installation Information For Insulation

Pipe Size		Insulation Materials	
Outside Diameter	Inside Diameter	Thickness	Formed polyethylen or equivalent is recommended. **Heat transfer rate:** 0.041~0.052kW/mK (0.035~0.045kcal/mh°C)
ø 6.35	8~10	10	
ø9.52	10~12	10	
ø12.7	14~16	10	
ø15.88	16~20	10	

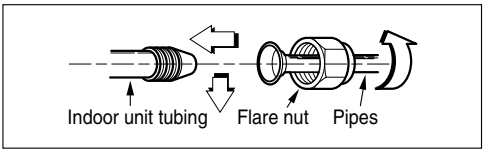
Indoor unit installation

1. Hook the indoor unit onto the upper portion of the installation plate.(Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.) Ensure that the hooks are properly seated on the installation plate by moving it left and right.



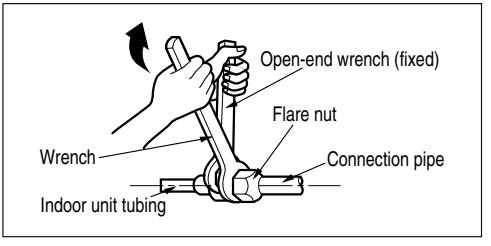
Connecting the pipings to the indoor unit and the drain hose to drain pipe.

1. Align the center of the pipes and sufficiently tighten the flare nut by hand.

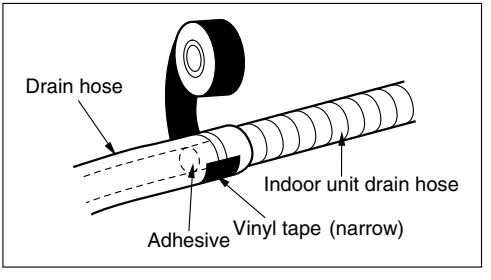


2. Tighten the flare nut with a wrench.

Outside diameter		Torque
mm	inch	kg·m
Ø6.35	1/4	1.8
Ø9.52	3/8	4.2
Ø12.7	1/2	5.5



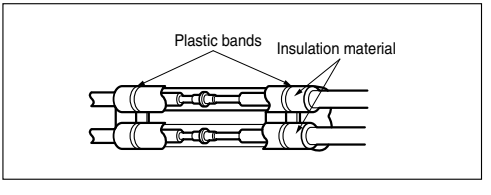
3. When extending the drain hose at the indoor unit, install the drain pipe.

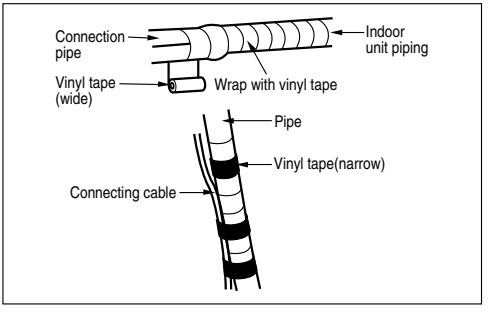


Wrap the insulation material around the connecting portion.

1. Overlap the connection pipe heat insulation and the indoor unit pipe heat insulation material. Bind them together with vinyl tape so that there is no gap.

2. Wrap the area which accommodates the rear piping housing section with vinyl tape.





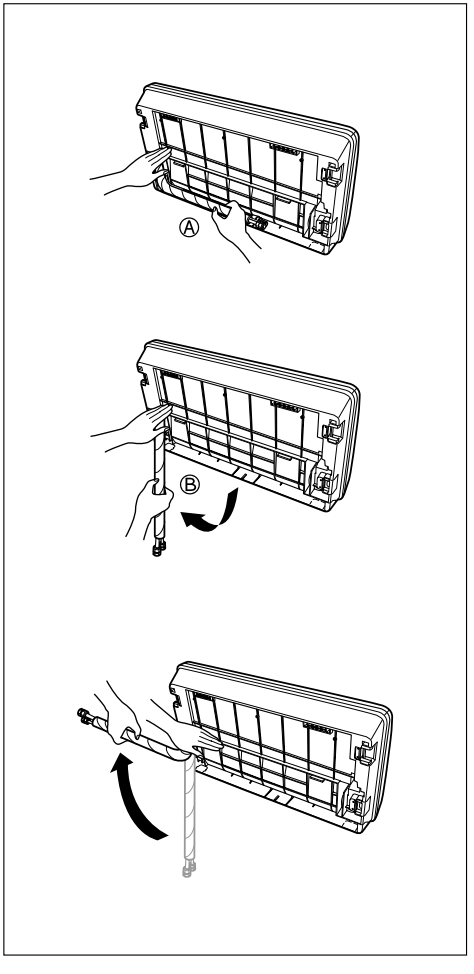
⚠CAUTION

: Installation Information For right piping. Follow the instruction below.

Good case

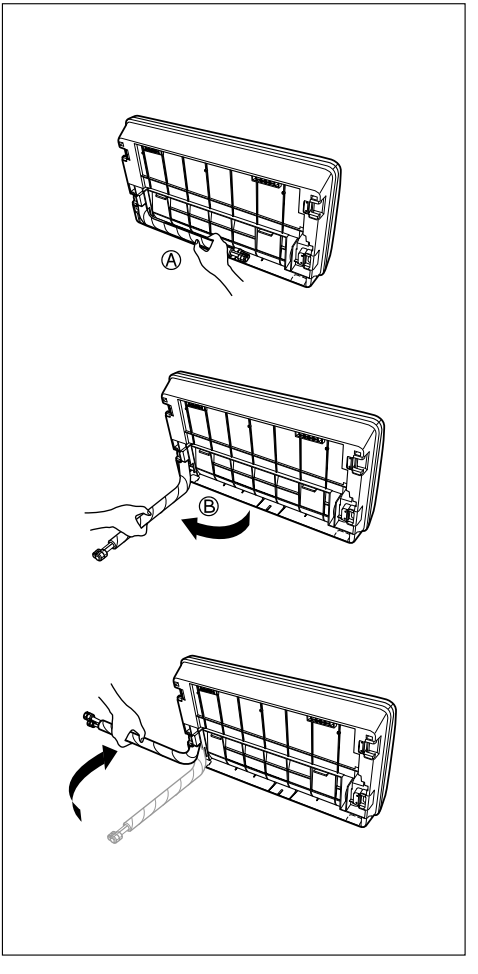
For left piping. Follow the instruction below.

1. Press on the upper side of clamp. (Ⓐ)
2. Unfold the tubing to downward slowly. (Ⓑ)
3. Bend the tubing to the left side of chassis.



Bad case

1. Following bending type from right to left could cause problem of pipe damage.



Connecting of piping - indoor(18k,24k)

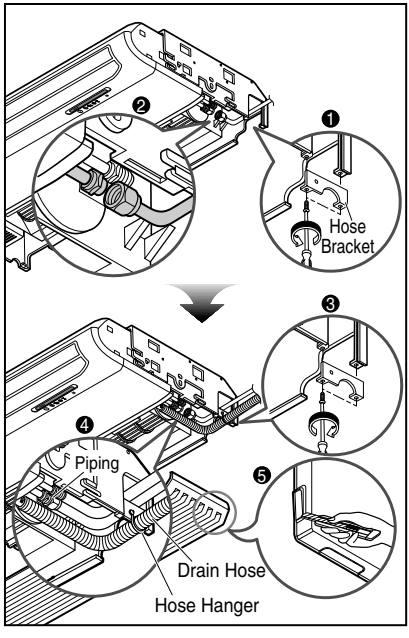
On the ceiling

1) Connecting the pipes to the indoor unit

The pipe can be connected to right side, bottom or back of the unit.

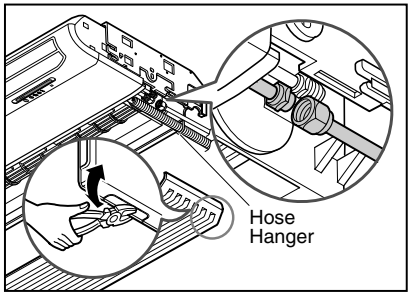
1. For the Right Side Piping

- After bending an end of the connecting tube, align the center of the pipings and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- Connect the Drain Hose insulated to the drain outlet. Drain hose should be go through under the Hose Bracket as shown in figure ❹.
- Hang the drain hose on the hose hanger and fix it to the hole of the hose bracket with a screw.



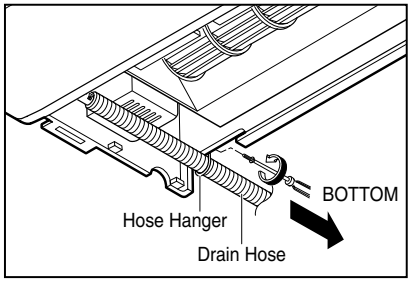
2. For the Bottom Side Piping

- Remove the knock-out on the bottomside of Inlet Grille
- Align the center of the pipings and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- Connect the Drain Hose insulated to the drain outlet.
- Hang the drain hose on the hose hanger and fix it to the hole of cabinet bottom with a screw.



2) Connecting the Drain Hose

- The drain hose can be connected to not only the right side but also left side of the unit.
- If the drain hose is connected to the left side, it should go through the cabinet bottom.
- Hang the drain hose on the hose hanger and fix it to the hole of cabinet bottom with a screw.

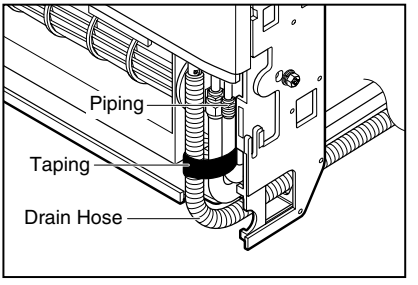


On the wall or floor

1) Connecting the pipes to the indoor unit

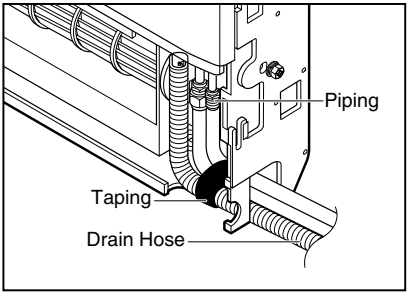
1. For the Right Rear Piping

- Remove the knock-out at the back side of the cabinet.
- After bending an end of the connecting tube, align the center of the pipings and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- Connect the Drain Hose insulated to the drain outlet.
- Tape the Drain Hose to the pipings to avoid coming off the drain-outlet.



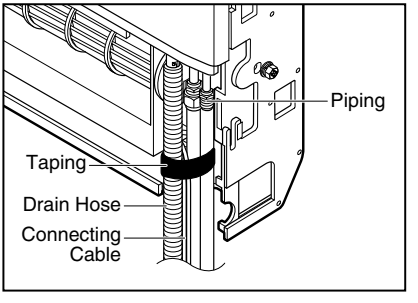
2. For the Right Side Piping

- After bending an end of the connecting tube, align the center of the pipings and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- Connect the Drain Hose insulated to the drain outlet.
- Tape the Drain Hose to the pipings to avoid coming off the drain-outlet.



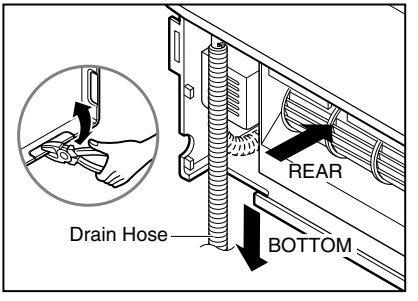
3. For the Right Bottom Piping

- Align the center of the pipings and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- Connect the Drain Hose insulated to the drain outlet.



2) Connecting the Drain Hose

- The drain hose can be connected to not only right side but also left side of the unit.



Connecting the Cables

Indoor

Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the outdoor unit connection. (Ensure that the color of the wires of the outdoor unit and the terminal No. are the same as those of the indoor unit.)

⚠CAUTION

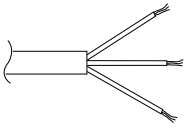
- **The above circuit diagram is subject to change without notice.**
- **The earth wire should be longer than the common wires.**
- **When installing, refer to the circuit diagram behind the panel front of the indoor unit.**
- **Connect the wires firmly so that they may not be pulled out easily.**
- **Connect the wires according to color codes, referring to the wiring diagram.**

⚠CAUTION

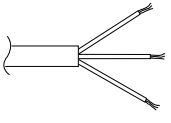
: The power cord connected to the "A" unit should be selected according to the following specifications(Type "B" approved by HAR or SAA).

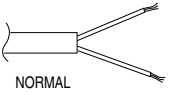
(mm²)

NORMAL CROSS -SECTIONAL AREA	Grade	
	5k~9k	12k~14k
	0.75	1.0
Unit(A)	Indoor	Indoor
Cable Type(B)	H05VV-F	H05VV-F



The power connecting cable connecting the indoor and outdoor unit should be selected according to the following specifications (Type "B" approved by HAR or SAA).





NORMAL
CROSS-SECTIONAL
AREA 0.75mm²

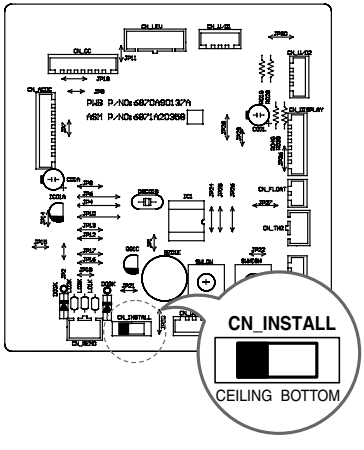
(mm²)

NORMAL CROSS -SECTIONAL AREA	Grade	
	5k~9K	12k~14k
	0.75	1.0
Cable Type(B)	H07RN-F	H07RN-F

NOTICE

: Selection of the slide switch according to installation method

1. In case the indoor unit is installed on the floor, please change the switch which is on the Main PCB Ass'y to the "BOTTOM" state.
2. In case the inoor unit is installed under the ceiling, please change the switch which is on the Main PCB Ass'y to the "CEILING" state.
   ✳ The initial state of the slide switch is set for the bottom installation.



Checking the Drainage

1. Set the air direction louvers up-and-down to the position(horizontally) by hand.

To check the drainage.

1. Pour a glass of water on the evaporator using a kettle.
2. Ensure the water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.

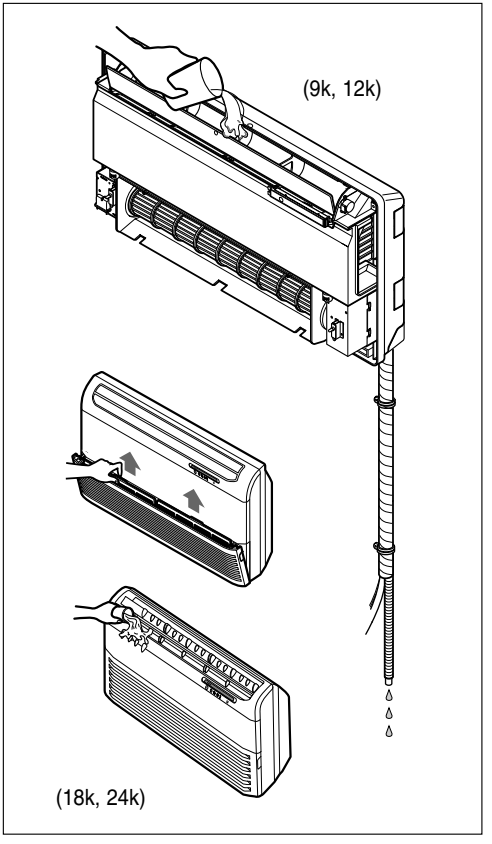
■ Checking the Drainage

1. Remove the Air Filter.

- To remove air filter, take hold of tab and pull slightly upwards.

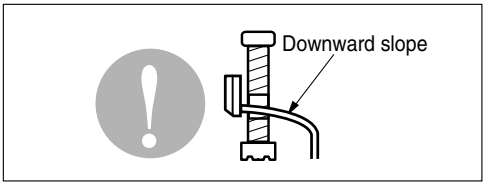
2. Check the drainage.

- Spray one or two glasses of water upon the evaporator.
- Ensure that water flows drain hose of indoor unit without any leakage.

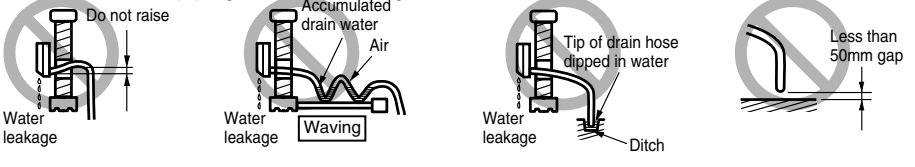


Drain piping

1. The drain hose should point downward for easy drain flow.



2. Do not make drain piping like the following.

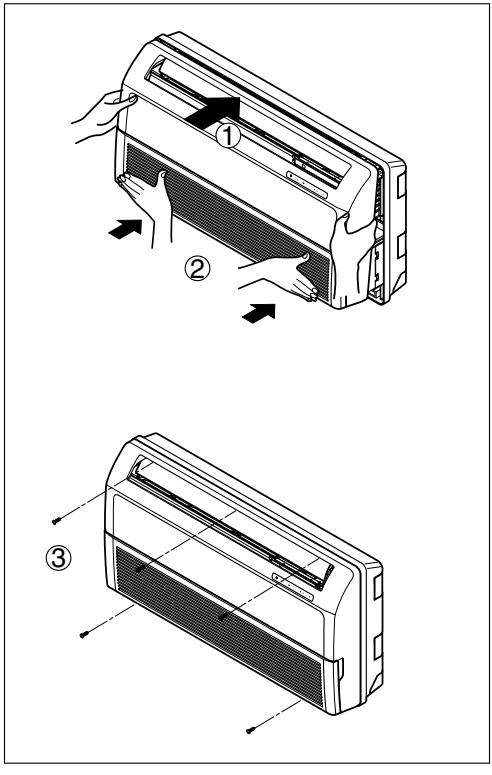


Panel Front Assembly(9k, 12k)

1. **Suspend the hook of panel front in the groove.**

2. **Press the panel front.**

3. **Screw up panel front.**

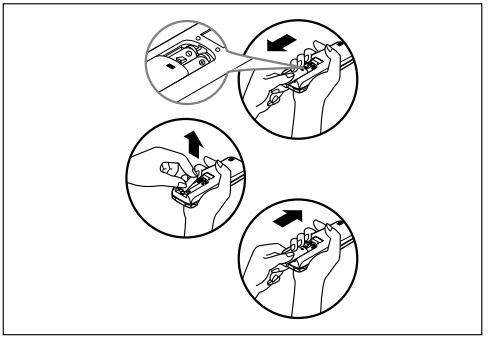


Test Running

1. Check that all tubing and wiring are properly connected.
2. Check that the gas and liquid side service valves are fully open.

Prepare remote controller

1. Remove the battery cover by pulling it according to the arrow direction.
2. Insert new batteries making sure that the (+) and (–) of battery are installed correctly.
3. Reattach the cover by pushing it back into position.

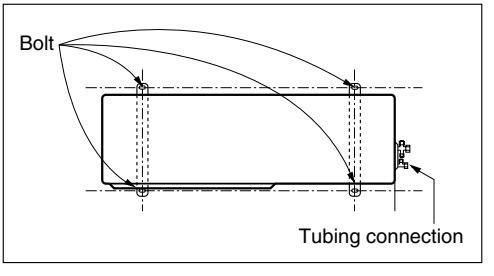


NOTICE

- Use 2 AAA(1.5volt) batteries. Do not use rechargeable batteries.
- Remove the batteries from the remote controller if the system is not used for a long time.

Settlement of outdoor unit

1. Anchor the outdoor unit with a bolt and nut(ø10mm) tightly and horizontally on a concrete or rigid mount.
2. When installing on the wall, roof or rooftop, anchor the mounting base securely with a nail or wire assuming the influence of wind and earthquake.
3. If the vibration of the unit is transmitted to the hose, secure the unit with an anti-vibration rubber.

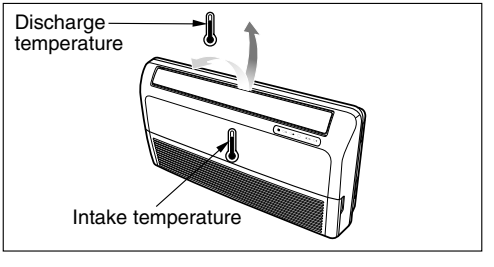


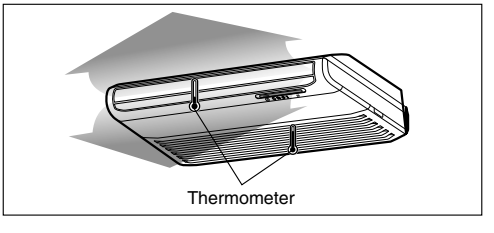
Evaluation of the performance

Operate the unit for 15~20 minutes, then check the system refrigerant charge:

1. Measure the pressure of the gas side service valve.
2. Measure the temperature of the intake and discharge of air.
3. Ensure the difference between the intake temperature and the discharge is more than 8°C
4. For reference; the gas side pressure of optimum condition is as below.(Cooling)

The air conditioner is now ready for use.





Refrigerant	Outside ambient TEMP.	The pressure of the gas side service valve.
R-22	35°C (95°F)	4~5kg/cm²G(56.8~71.0 P.S.I.G.)
R-410A	35°C (95°F)	8.5~9.5kg/cm²G(120~135 P.S.I.G.)

NOTICE

: If the actual pressure is higher than shown, the system is most likely over-charged, and charge should be removed. If the actual pressure are lower than shown, the system is most likely undercharged, and charge should be added.

PUMP DOWN

This is performed when the unit is relocated or the refrigerant circuit is serviced.

Pump Down means collecting all refrigerant into the outdoor unit without the loss of refrigerant.

⚠CAUTION

: Be sure to perform Pump Down procedure in the cooling mode.

Pump Down Procedure

1. Connect a low-pressure gauge manifold hose to the charge port on the gas side service valve.
2. Open the gas side service valve halfway and purge the air in the manifold hose using the refrigerant.
3. Close the liquid side service valve(all the way).
4. Turn on the unit's operating switch and start the cooling operation.
5. When the low-pressure gauge reading becomes 1 to 0.5kg/cm^2 G(14.2 to 7.1 P.S.I.G.), fully close the gas side valve and then quickly turn off the unit. Now Pump Down procedure is completed, and all refrigerant is collected into the outdoor unit.



P/No.: 3828A22004L