

# CONVERTIBLE TYPE AIR CONDITIONERS INSTALLATION INSTRUCTIONS

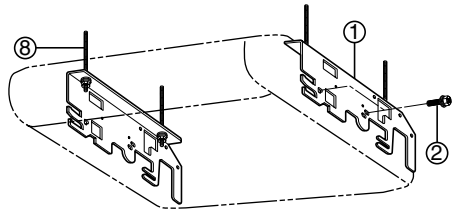
- Please read this instruction manual completely before installing the product.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only.
- Installation work must be performed in accordance with national wiring standards by authorized personnel only.

## Installation Parts Provided

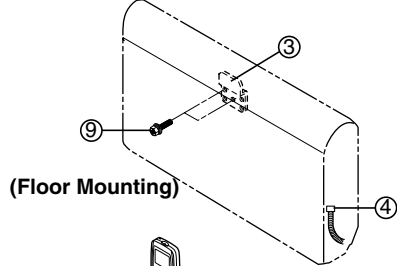
- ① Installation Plate (2pcs)
- ② Washer Bolt (M8 × L25, 4pcs, type "A")
- ③ Floor Mount Bracket (1pcs)
- ④ Drain Hose, Insulated
- ⑤ Remocon Holder
- ⑥ Screw for Remocon Holder (type "B")
- ⑦ Drain Hose Hanger and screw

## The other Installation Parts Needed

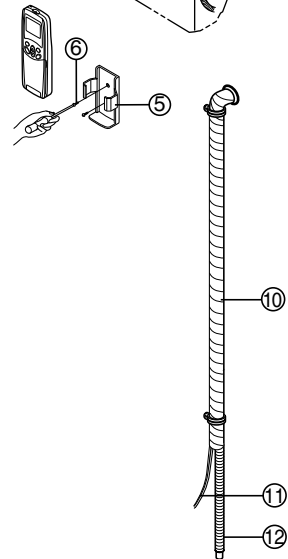
- ⑧ Suspension Bolt
- ⑨ Bolts for Mount Bracket
- ⑩ Connecting Tube
- ⑪ Connecting Cable
- ⑫ Drain Hose Extended



(Ceiling/Wall Mounting)



(Floor Mounting)





# OUT-LINE OF INSTALLATION

## 1. The following should be always observed for safety .....3

Installation works	Installation Parts	Required tools
<b>2. Installation of Indoor</b>		
1) Selection of the best location .....4 2) Indoor unit installation .....5 Installation on the ceiling ..5 Installation on the wall .....9 Installation on the floor ...11	<ul style="list-style-type: none"> <li>• Installation Plate</li> <li>• Four Type "A" screws</li> <li>• Connecting cable</li> </ul>	<ul style="list-style-type: none"> <li>• Level</li> <li>• Screw driver</li> <li>• Electric drill</li> <li>• Hole core drill (ø70mm)</li> </ul>
<b>3. Connecting Pipes to the Indoor Unit</b>		
1) Installation on the ceiling .....12 2) Installation on the wall or floor .....13	<ul style="list-style-type: none"> <li>• Pipes</li> <li>• Insulated drain hose</li> <li>• Insulation materials</li> </ul>	<ul style="list-style-type: none"> <li>• Flaring Tools set</li> <li>• Specified Torque Wrenches</li> <li>Spanner ..... Half union..</li> </ul>
<b>4. Checking the Drainage .....14</b>		
<b>5. Test running</b>		
1) Connection of power supply .....15 2) Evaluation of the performance .....15	<ul style="list-style-type: none"> <li>• Two type "B" screws</li> </ul>	<ul style="list-style-type: none"> <li>• Owner's Manual</li> <li>• Thermometer</li> </ul>

# 1. The following should always be observed for safety

- Please report to or take consent by the supply authority before connection to the system.
- Be sure to read "THE FOLLOWING SHOULD ALWAYS BE OBSERVED FOR SAFETY" before installing the air conditioner.
- Be sure to observe the cautions specified here as they include important items related to safety.
- The indications and meanings are as follows.

	<b>WARNING</b>	Could lead to death, serious injury, etc.
	<b>CAUTION</b>	Could lead to serious injury in particular environments when operated incorrectly.

- After reading this manual, be sure to keep it together with the instruction manual in a handy place on the customer's site.



## WARNING

### Do not install it yourself (customer).

- Incomplete installation could cause injury due to fire, electric shock, the unit falling or a leakage of water. Consult the dealer from whom you purchased the unit or special installer.

Perform the installation securely referring to the installation manual.

- Incomplete installation could cause a personal injury due to fire, electric shock, the unit falling or a leakage of water.

### Install the unit securely in a place which can bear the weight of the unit.

- When installed in an insufficient strong place, the unit may fall and result in serious problem.

Perform electrical work according to the installation manual and be sure to use an exclusive circuit.

- If the capacity of the power circuit is insufficient or there is incomplete electrical work, it could result in a fire or an electric shock.

Use the specified wires to connect the indoor and outdoor units securely and attach the wires firmly to the terminal board connecting sections so the stress of the wires is not applied to the sections.

- Incomplete connecting and fixing could cause fire.

Attach the electrical part cover to the indoor unit and the service panel to the outdoor unit securely.

- Not being attached securely, it may cause electric problem or electric shock due to dust or water etc.

### Check that the refrigerant gas due not leak after installation is completed.

Be sure to use the part provided or specified parts for the installation work.

- The use of defective parts could cause an injury or leakage of water due to a fire, electric shock, the unit falling, etc.



## CAUTION

### Perform the drainage/piping work securely according to the installation manual.

- If there is a defect in the drainage/piping work, water could drop from the unit and household goods could be wet and damaged.

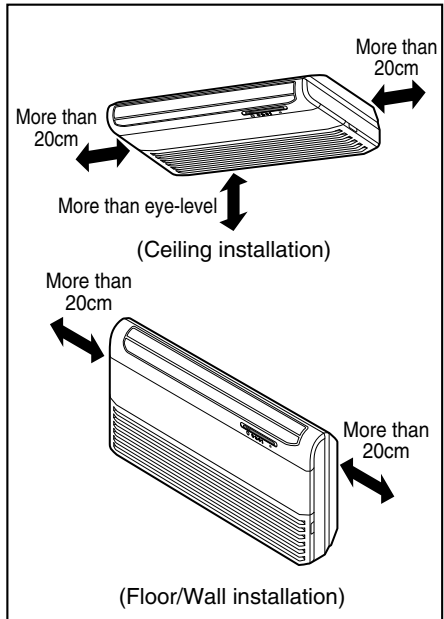
### Do not install the unit in a place where an inflammable gas leaks.

- If gas leaks and accumulates in the area surrounding the unit, it could cause an explosion.

## 2. Installation of Indoor

### 1. Selection of the best location

- There should not be any heat source or steam near the unit.
- There should not be any obstacles to prevent the air circulation.
- A place where air circulation in the room will be good.
- A place where drainage can be easily obtained.
- A place where noise prevention is taken into consideration.
- Do not install the unit near the door way.
- Ensure the spaces indicated by arrows from the wall, ceiling, or other obstacles.



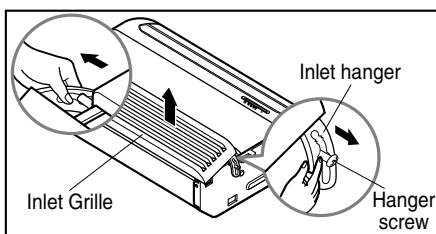
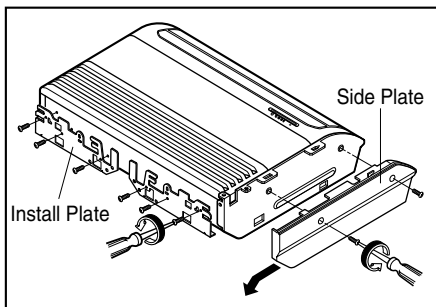
## 2. Indoor unit installation

### ■ Before Installing, prepare Installation Plates

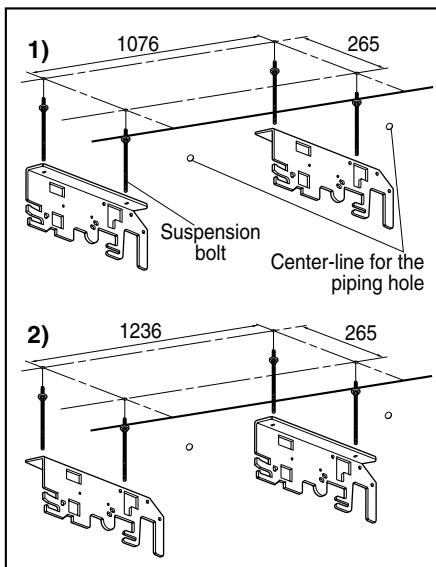
- 'Installation Plates' are attached at the bottom of indoor unit.  
Detach them by removing each 3 screws at both sides.
- Detach 'Side Plate (R,L)' by removing each 2 screws on both sides.
- Pull the upper right and left side of 'Inlet Grille' to the front, and it will stop at slightly tilted position.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

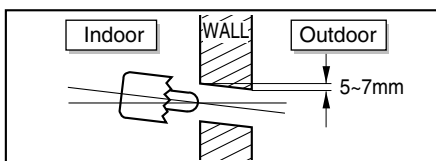
- Measure and mark the position for the Suspension bolts and the piping hole.
- Drill the hole for anchor nut on the ceiling.



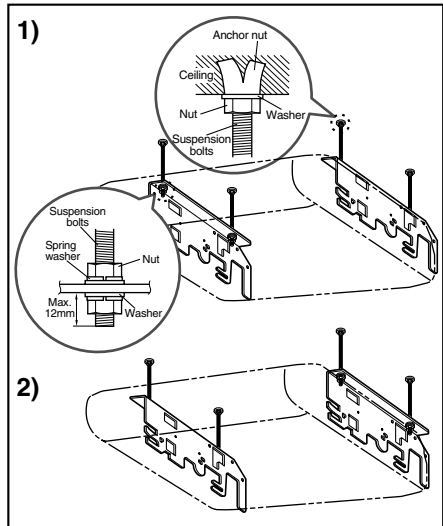
- ※ Before secure the Installation Plates, select the bent direction of the Installation Plate to the inside or the outside according to the installation circumstances.



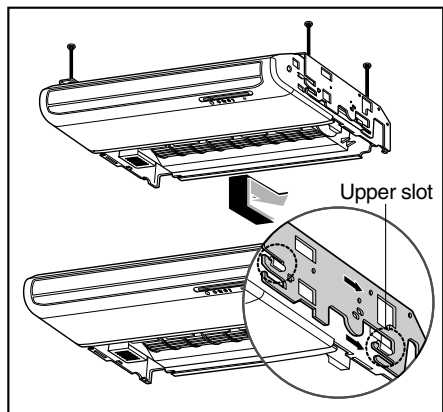
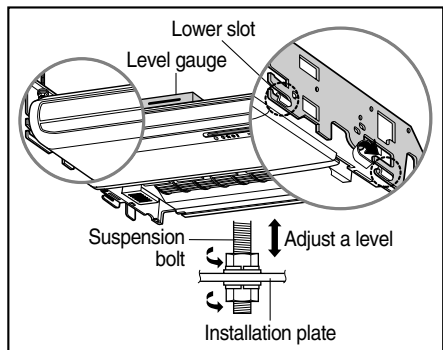
- Drill the piping hole on the wall slightly tilted to the outdoor side using a  $\phi 70$  hole-core drill.



- 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 bottomsides so as to drain well.

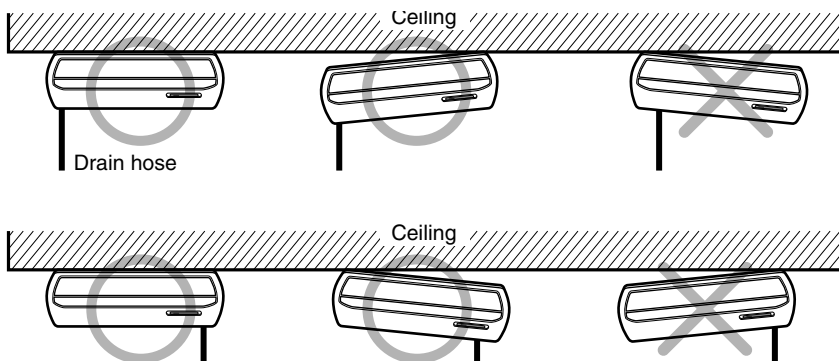


**CAUTION**

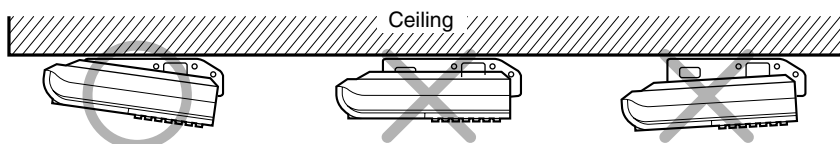
1. **Install declination** of the indoor unit is very **important for the drain** of the convertible type air conditioner.
2. Minimum thickness of the insulation for the connecting pipe shall be 7mm.
3. If the Installation Plates are fixed to horizontal line, the indoor unit after installing will be declined to the bottomside.

**Front of view**

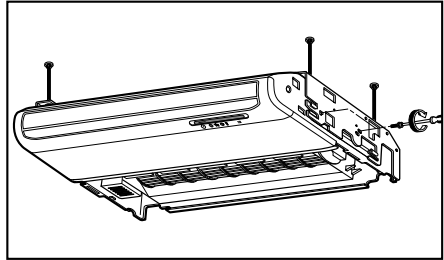
- The unit must be horizontal or declined to the drain hose connected when finished installation.

**Side of view**

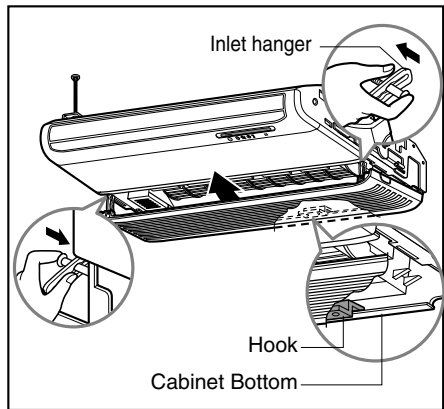
- The unit must be declined to the bottomside of the unit when finished installation.



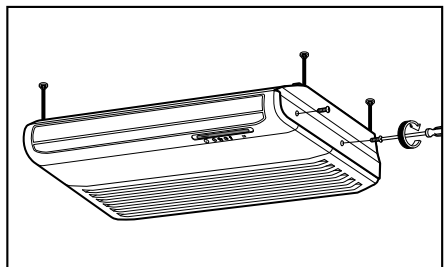
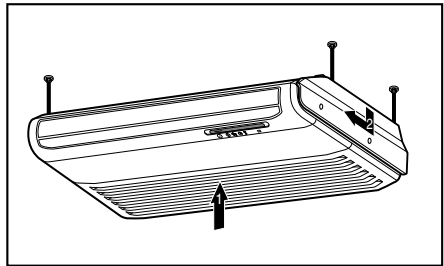
- Secure the unit to the Installation Plates with four M8 bolts and washers.



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

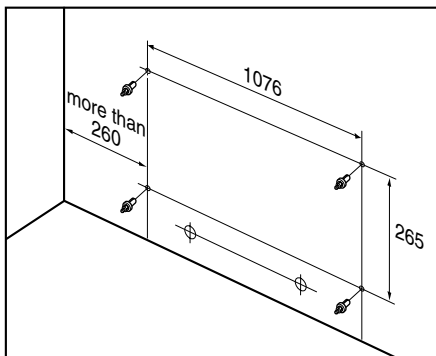


- Fit the projection hooks of the side plates to the 'Side Panel' and the 'Front Panel' by lifting it.
- Fasten the screws.

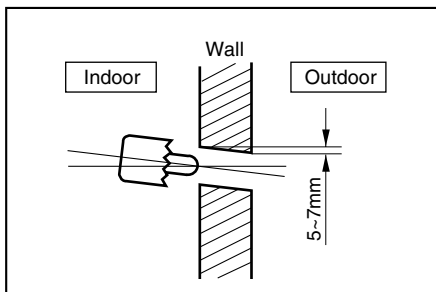


## 2) Installation on the Wall

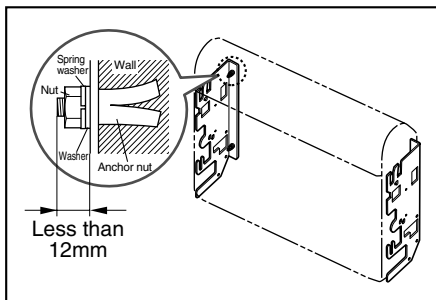
- Select and mark the position for fixing bolts and piping hole.  
Decide the position for fixing bolts slightly tilted to the drain direction after considering the direction of drain hose.
- Drill the hole for anchor nut on the wall.



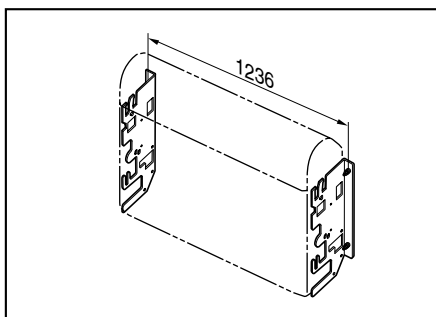
- Drill the piping hole on the wall slightly tilted to the outdoor side using a  $\varnothing 70$  hole-core drill.



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

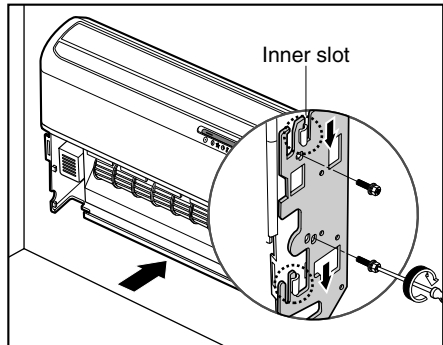


- ※ Before secure the Install Plates, select the bent direction of the 'Install Plate' to the inside or outside according to the installation circumstances.

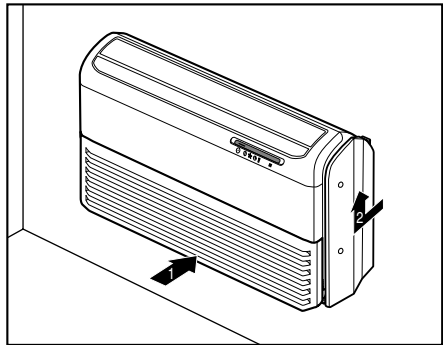


Install the Indoor unit onto Installation Plate.

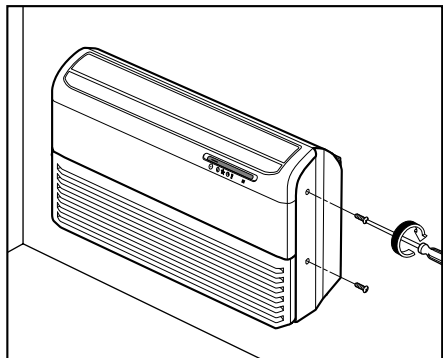
- Insert 2 hooks on the both left and right side of the unit to the inner slot (wall side) of the Installation Plate.
- Secure the unit to the Installation Plate with four M8 bolts and washers.



- 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.



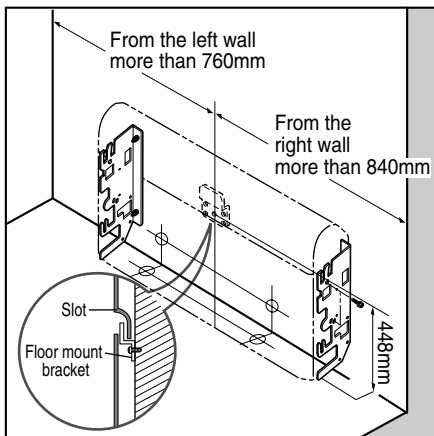
### 3) Installation on the floor

Installation of Mount Bracket.

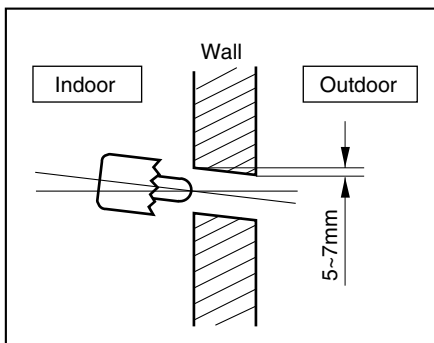
- Select and mark the position for Mount Brackets and the piping hole.
- Drill the hole for the anchor nut on the wall.
- Drill the piping hole using a  $\varnothing 70$  hole-core drill.
- Secure the Mount Brackets on the wall with four M4 screws.

Install the indoor unit onto the Mount Brackets.

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

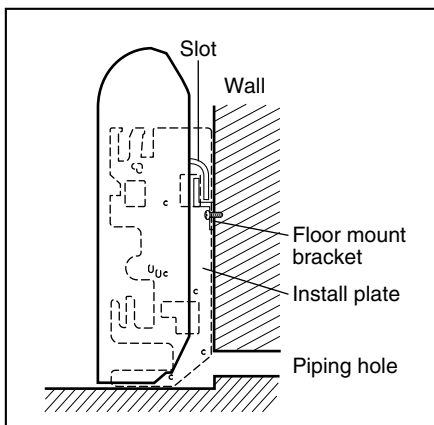


- Drill the piping hole with 70mm dia, hole core drill.
- Piping hole should be slightly slant to the outdoor side.



#### **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.



## 3. Connecting the pipes to the indoor unit

### 3-1. Installation on the ceiling

#### 1) Connecting the pipes to the indoor unit

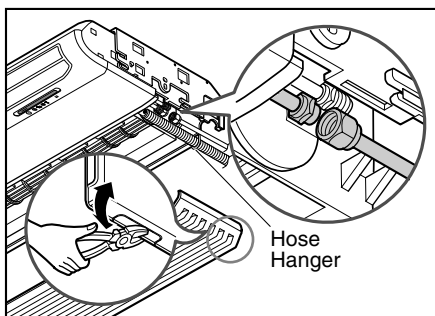
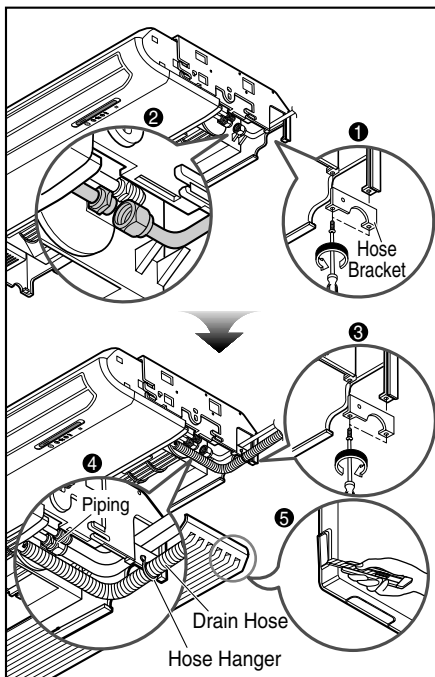
The pipe can be connected to right side, bottom or back of the unit.

##### 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 go through under the Hose Bracket as shown in figure ④.
- Hang the drain hose on the hose hanger and fix it to the hole of the hose bracket with a screw.

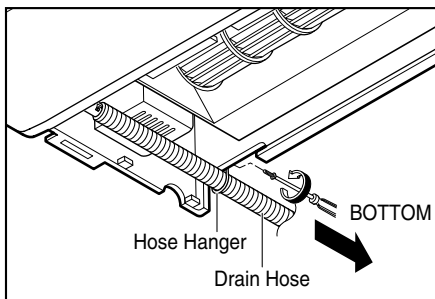
##### 2. For the Bottom Side Piping

- 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.

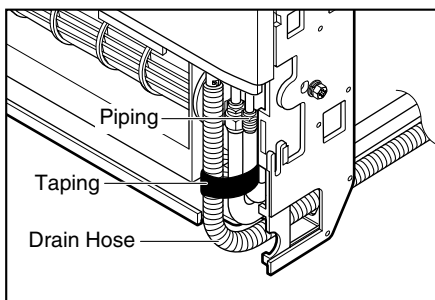


## 3-2. Installation on the wall or floor

### 1) Connecting the pipes to the indoor unit

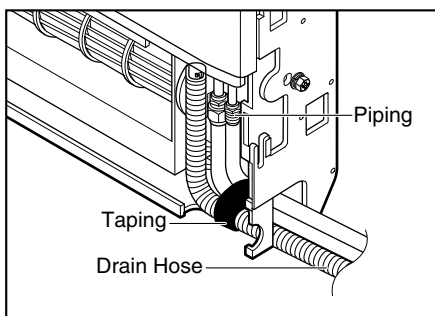
#### 1. For the Right Rear Piping

- 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.



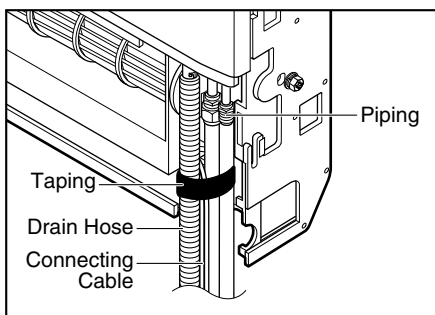
#### 2. For the Right Side Piping

- 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.



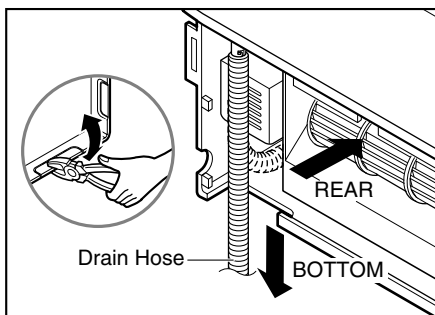
#### 3. For the Right Bottom Piping

- 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.

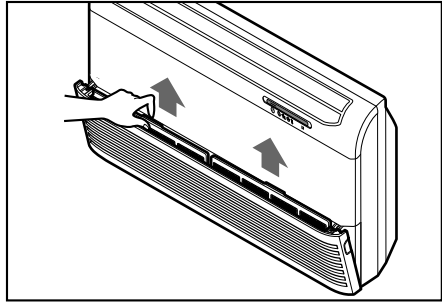


## 4. Checking the Drainage

### ■ Checking the Drainage

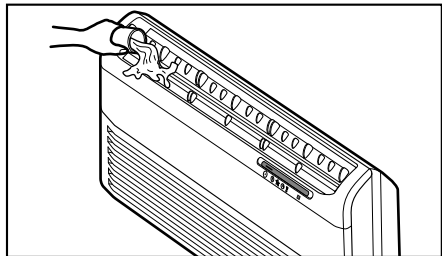
#### 1. Remove the Air Filter.

- 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.



## 5. Test running

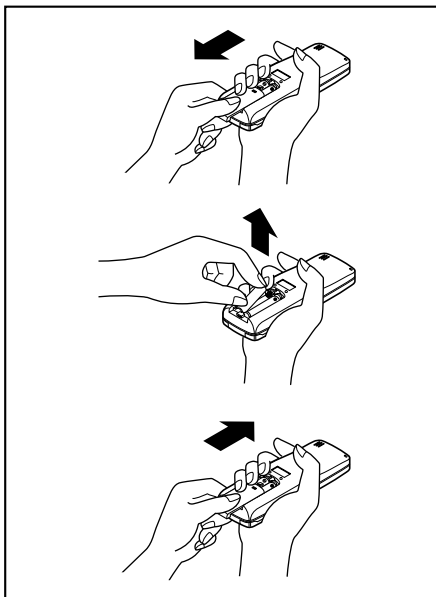
### 1) Connection of power supply

#### 1. Connect the power supply cord to the independent power supply.

- Circuit breaker is required.

#### 2. Prepare the remote control.

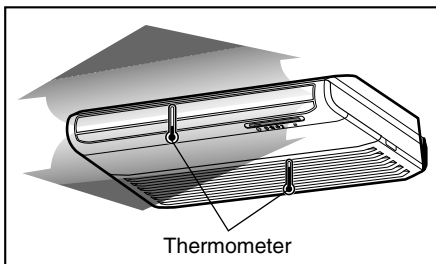
- Insert two batteries provided.  
Remove the battery cover from the remote controller.
- Slide the cover according to the arrow direction. Insert the two batteries.  
(Two "R03" or "AAA" dry-cell batteries or equivalent.)
- Be sure that the (+) and (-) directions are correct.
- Be sure that both batteries are new.  
Re-attach the cover.
- Slide it back into position.



#### 3. Operate the unit for fifteen minutes or more.

### 2) Evaluation of the performance

1. Measure the temperature of the intake and discharge air.
2. Ensure the difference between the intake temperature and the discharge one is more than 8°C (Cooling) or reversely (Heating).



### 3) 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 indoor 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.

