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ENGLISH

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DEUTSCH

MULTI V™ System

Indoor Unit

INSTALLATION MANUAL

Convertible Type

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.

TABLE OF CONTENTS

Installation Requirements	Required Parts	Required Tools
Safety Precautions3	☐ Four type "A" screws & plastic anchors	☐ Level gauge
Introduction8	☐ Connecting cable	☐ Screw driver
Symbols used in this manual.....8	☐ Installation guide map	☐ Electric drill
Features8		☐ Hole core drill (ø25mm, ø45mm, ø70mm)
		☐ Horizontal meter
Installation9	☐ Pipes: Gas side3/8", 1/2" Liquid side1/4"	☐ Flaring tool set
Installation Parts9	☐ Insulation materials	☐ Specified torque wrenches 1.8kg.m, 4.2kg.m, 5.5kg.m, 6.6kg.m (different depending on model No.)
Installation Tools.....9	☐ Additional drain pipe (Outer diameter15.5mm)	☐ SpannerHalf union
Installation Map.....10	☐ Two type "B" screws	
Select the best Location11		☐ A glass of water
Preparing Work for Installation11		☐ Screw driver
Mounting the installation plate(Wall Mounting)12		
Mounting the anchor Nut & Bolt(Ceiling Mounting).....12		☐ Hexagonal wrench(4mm)
Checking the Drainage14		☐ Leak detector
Panel Front Assembly14		☐ Vacuum pump
Installation of Remote Control15		☐ Gauge manifold
Optional operation16		
		☐ 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.



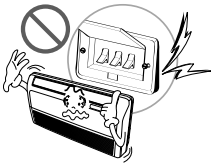
Be sure to follow the instruction.

⚠ 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.



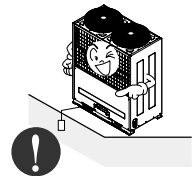
For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

- 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.



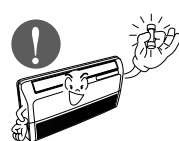
Always install a dedicated circuit and breaker.

- 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.



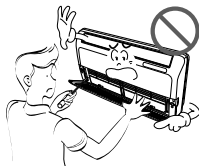
Do not modify or extend the power cable.

- 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.



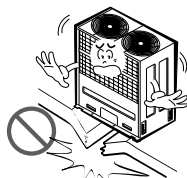
For installation, always contact the dealer or an Authorized Service Center.

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



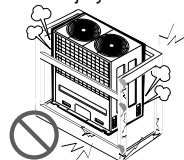
Do not install the product on a defective installation stand.

- 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

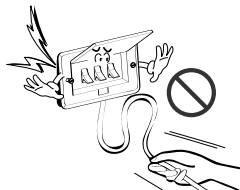
Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.

- Moisture may condense and wet or damage furniture.



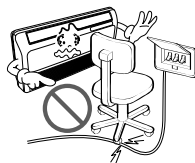
Take care to ensure that power cable could not be pulled out or damaged during operation.

- There is risk of fire or electric shock.



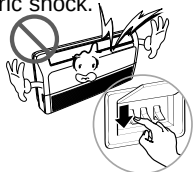
Do not place anything on the power cable.

- 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.



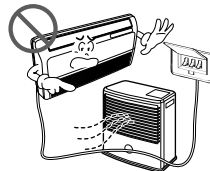
Do not touch(operate) the product with wet hands.

- There is risk of fire or electric shock.



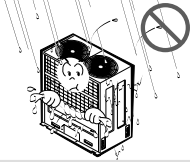
Do not place a heater or other appliances near the power cable.

- 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



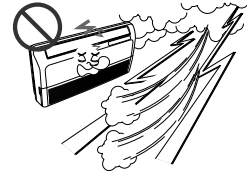
If strange sounds, or small or smoke comes from product. Turn the breaker off or disconnect the power supply cable.

- 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.



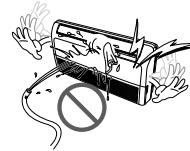
When the product is soaked (flooded or submerged), contact an Authorized Service Center.

- There is risk of fire or electric shock.



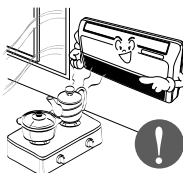
Be cautious that water could not enter the product.

- 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.



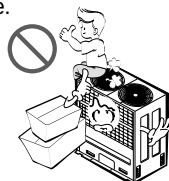
When the product is not be used for a long time, disconnect the power supply plug or turn off the breaker.

- 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.

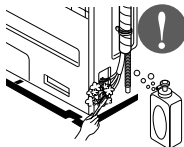


⚠ CAUTION

■ Installation

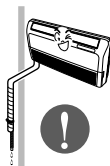
Always check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.



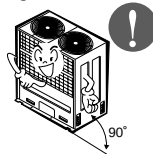
Install the drain hose to ensure that water is drained away properly.

- 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.



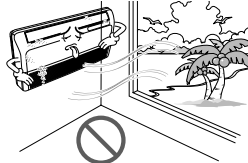
Use two or more people to lift and transport the product.

- 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

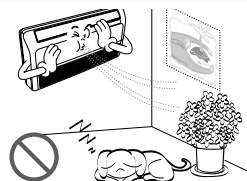
Do not expose the skin directly to cool air for long periods of time. (Don't sit in the draft.)

- This could harm to your health.



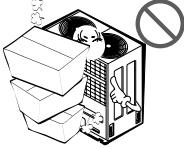
Do not use the product for special purposes, such as preserving foods, works of art, etc. It is a consumer air conditioner, not a precision refrigeration system.

- There is risk of damage or loss of property.



Do not block the inlet or outlet of air flow.

- It may cause product failure.



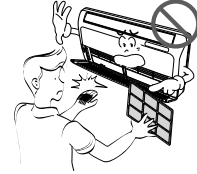
Use a soft cloth to clean. Do not use harsh detergents, solvents, etc.

- 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 anything on the product. (outdoor units)

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



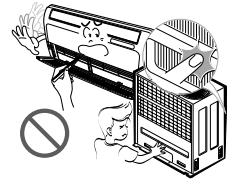
Always insert the filter securely. Clean the filter every two weeks or more often if necessary.

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



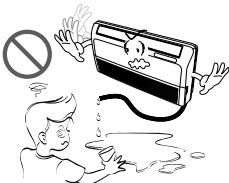
Do not insert hands or other objects through the air inlet or outlet while the product is operated.

- 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.



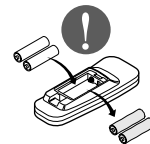
Use a firm stool or ladder when cleaning or maintaining the product.

- Be careful and avoid personal injury.



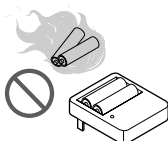
Replace the all batteries in the remote control with new ones of the same type. Do not mix old and new batteries or different types of batteries.

- 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.

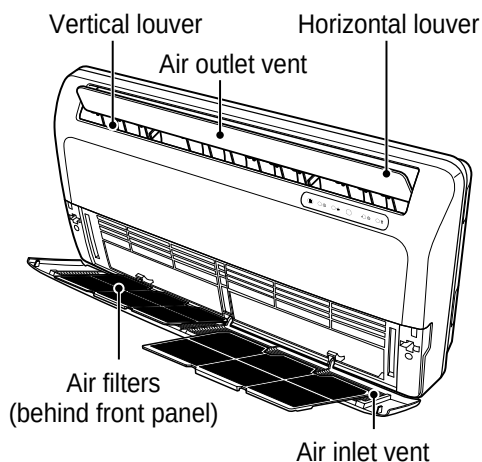


This symbol alerts you to hazards that may cause harm to the air conditioner.

NOTICE

This symbol indicates special notes.

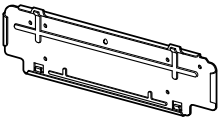
Features



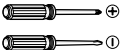
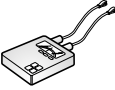
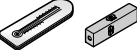
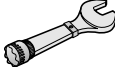
Installation

Read carefully, and then follow step by step.

Installation Parts

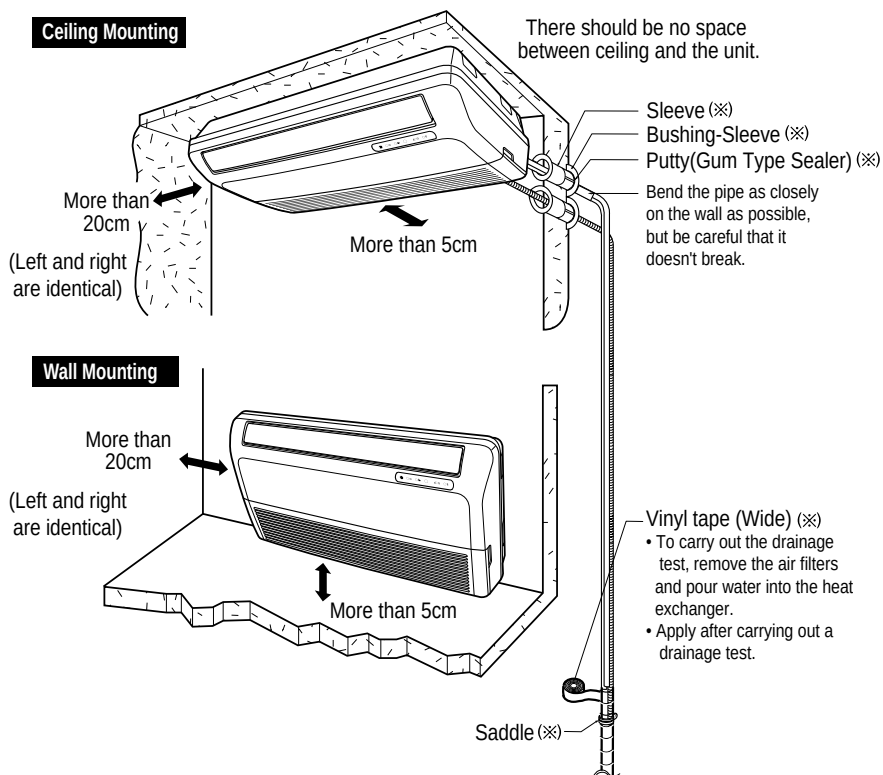
Installation plate	Type "A" screw and plastic anchor
	
Type "B" screw	Remote control holder
	

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

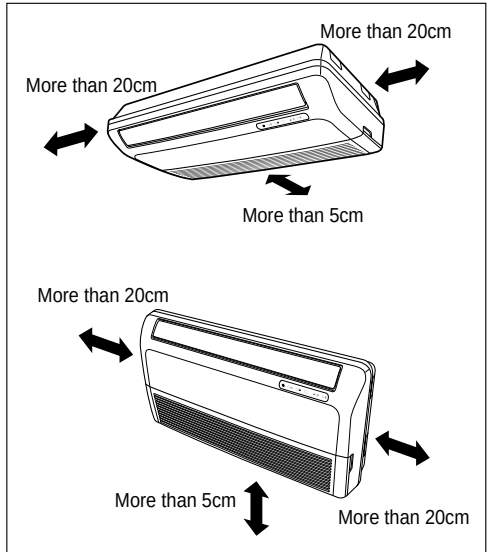
NOTICE Installation parts you should purchase. (※)



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

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.

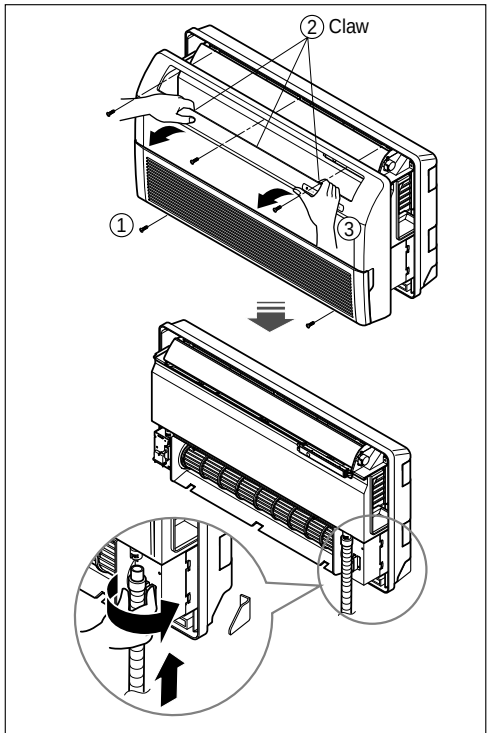


CAUTION: After removing the pipe hole, cut the burr for safety.

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

Drain hose junction

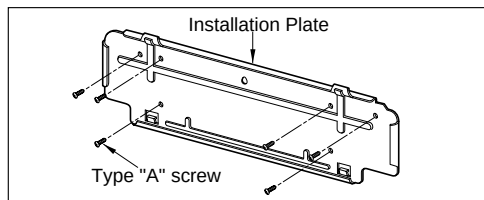
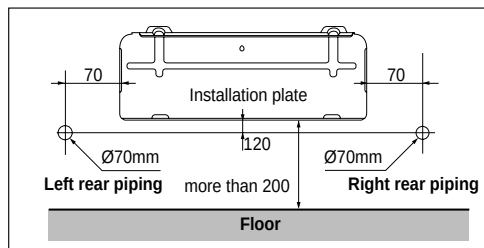
1. Remove the rubber stopple in the desired drain direction.
2. Insert drain hose into the handle of drain pan, and join drain hose and connecting hose according to the figure by.



Mounting the installation plate(Wall Mounting)

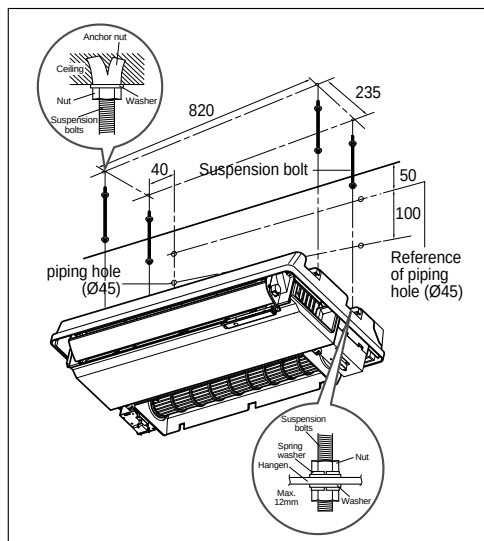
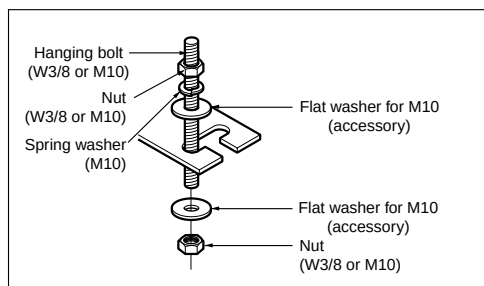
The wall you select should be strong and solid enough to prevent vibration

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)

- 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 suspension 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.

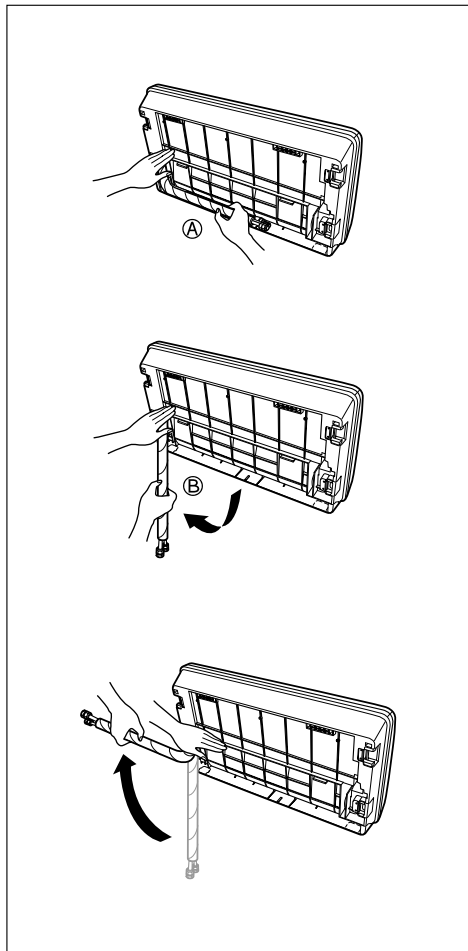
⚠ CAUTION

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

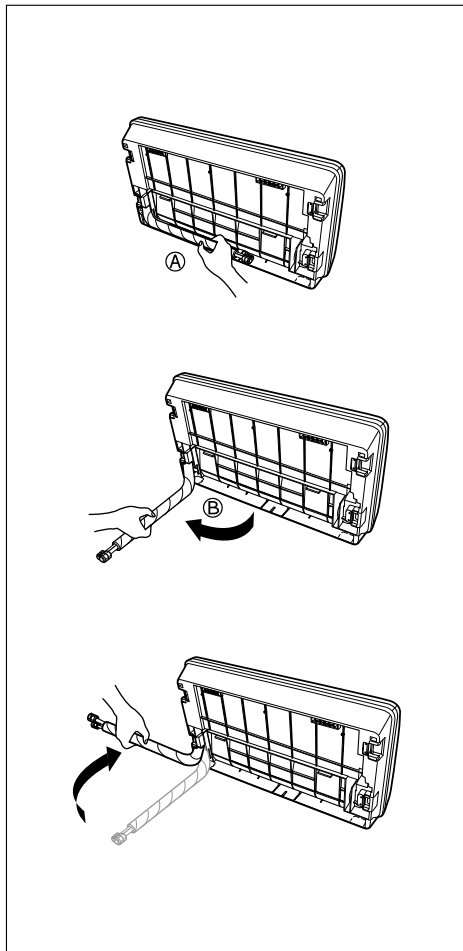
Good case

For left piping. Follow the instruction below.

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



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.

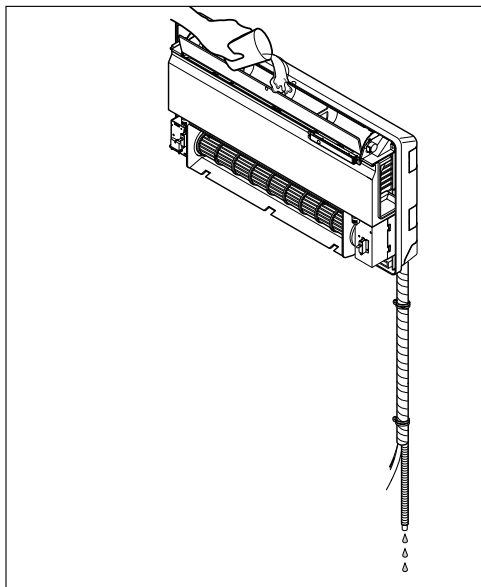
■ Checking the Drainage

1. Remove the Air Filter.

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

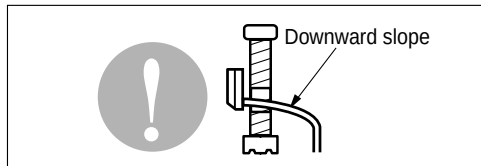
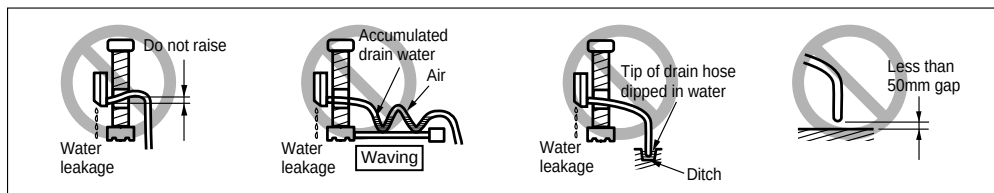
2. Check the drainage.

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



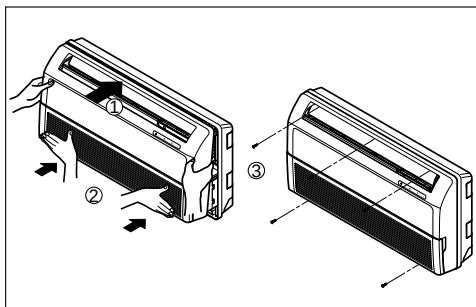
Drain piping

1. The drain hose should point downward for easy drain flow.
2. Do not make drain piping like the following.



Panel Front Assembly

1. Suspend the hook of panel front in the groove.
2. Press the panel front.
3. Screw up panel front.



Installation of Remote Control

- Although the room temperature sensor is in the indoor unit, the remote controller should be installed in such places away from direct sunlight and high humidity.

Installation of the remote controller

- Select places that are not splashed with water.
- Select controller position after receiving customer approval.
- The room temperature sensor is built in the indoor unit.
- This remote controller equipped with liquid crystal display. If this position is higher or lower, display is difficult to see. (The standard height is 1.2 ~1.5m high)

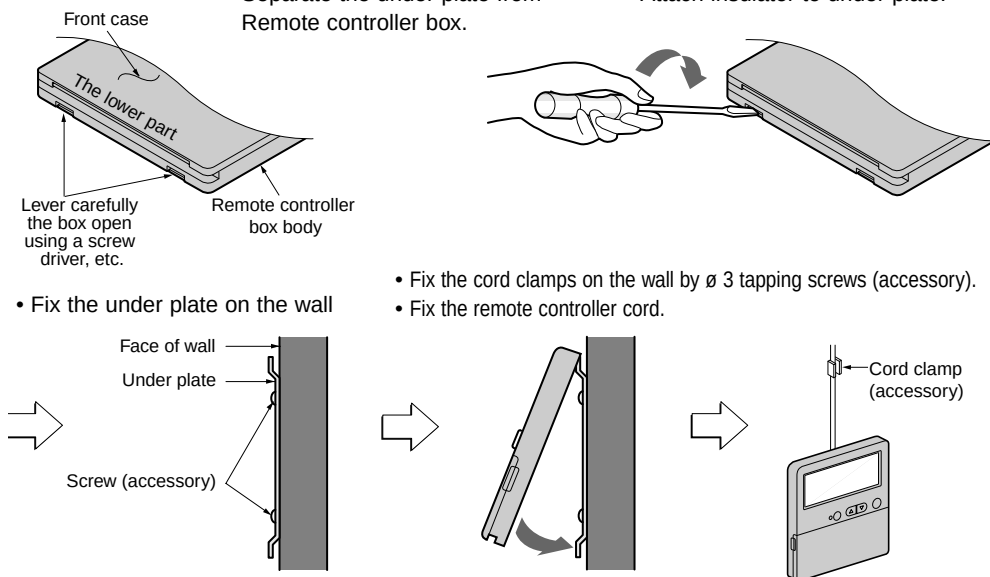
Routing of the remote controller cord

- Keep the remote controller cord away from the refrigerant piping and the drain piping.
- To protect the remote controller cord from electrical noise, place the cord at least 5cm away from other power cables. (audio equipment, television set, etc.)
- If the remote controller cord is secured to the wall, provide a trap at the top of the cord to prevent water droplets from running.

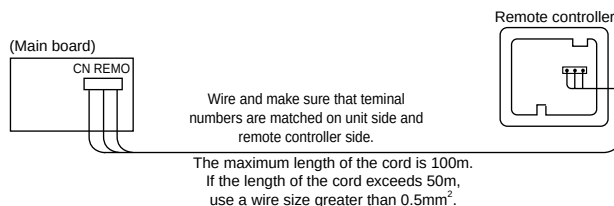
WIRED REMOTE CONTROLLER INSTALLATION

DISASSEMBLING

- Separate the under plate from Remote controller box.
- Attach insulator to under plate.



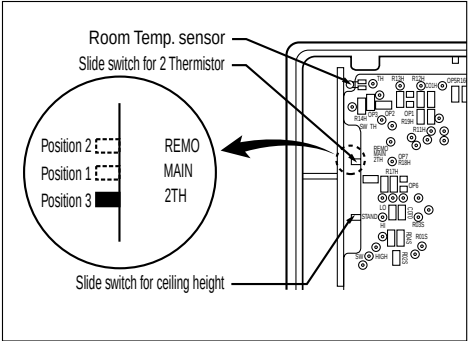
ELECTRICAL WIRING



Optional operation

1) Two Thermistor System

- (1) Open the rear cover of the wired remote-controller to set the mode.
- (2) Select one of three selectable modes as follows.
 - Position 1:
The room temperature is controlled by the thermistor of the main body.
 - Position 2:
The room temperature is controlled by the thermistor of the wired remote-controller, control the temperature according to the position of wired remote-controller.
 - Position 3:
The room temperature is controlled by lower temperature between the temperature of main body and of remote-controller sensor.
- (3) Move the slide switch to set position.
- (4) Close the rear cover and check if it works normally.



CAUTION :

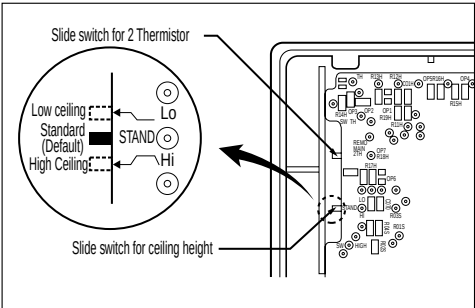
- Select the position after counselling with a customer.
In case of cooling mode, room temperature is controlled by the main body sensor.
- To control the room temperature by a wired remote controller, install the remote controller (room temp. sensor) to sense the temperature more accurately.
- Manufactured in the position 3.

2) Adjusting air volume to the height of ceiling

You can choose the RPM(or air volume) of indoor motor according to the height of ceiling to supply the comfortable atmosphere to consumers.

Procedure

- 1. Choose the selectable position in the table after measuring the height of ceiling.
- 2. In the case of changing the height as "high" or "low", open the rear cover of the wired remote-controller.
- 3. Move the slide switch to the set position.
- 4. Close the rear cover and check if it works nomally.



Ceiling height	Mode of slide switch	Change of air volume	Remark
more than 4.0m	High Ceiling	Increasing	Manufactured in standard mode
3.2~4.0m	Standard	-	
less than 3.2m	Low Ceiling	Decreasing	