

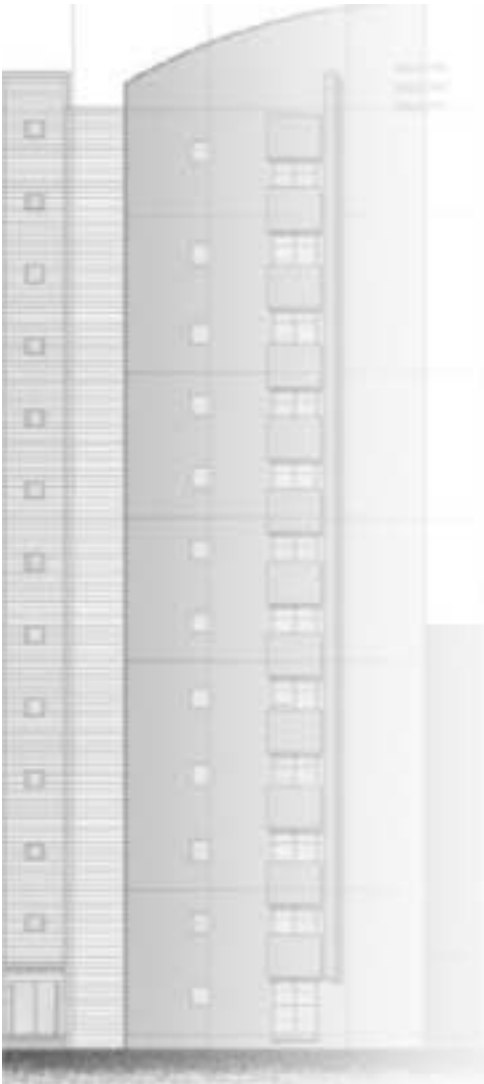


website <http://www.lgservice.com>
e-mail <http://www.lgeservice.com/techsup.html>

LG

MULTI V™ System Heat Pump Indoor Unit **INSTALLATION MANUAL**

MODELS: CRNN-CA/CB/CC/CD Series
Type: Floor Standing



IMPORTANT

- Please read this installation manual completely before installing the product.
- 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.

ENGLISH

ITALIANO

ESPAÑOL

FRANÇAIS

DEUTSCH

PORTUGUESE

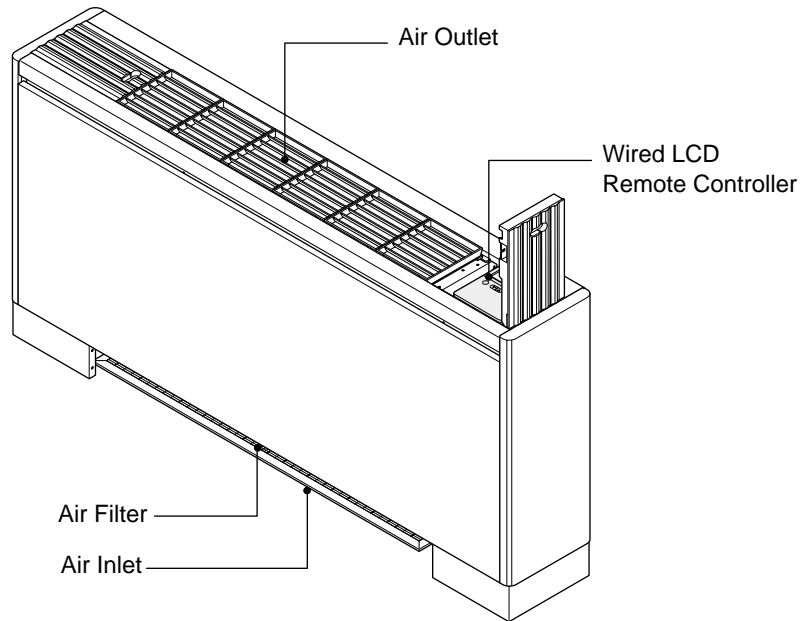
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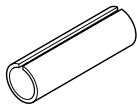
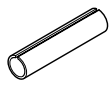
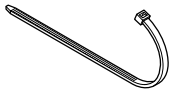
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Installation Parts

The other Installation Parts Needed

- 1.Connecting Cable
- 2.Drain Hose Extended



Name	Insulation for fitting	Clamp	(Other)
Quantity	1 set	8 EA	
Shape	 for gas pipe  for liquid pipe		<ul style="list-style-type: none"> • Owner's manual • Installation manual

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.

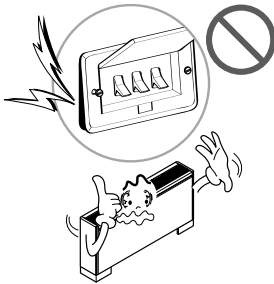
	Be sure not to do.
	Be sure to follow the instruction.

⚠ WARNING

■ Installation

Do not use a defective or under-rated circuit breaker. Use this appliance on a dedicated circuit.

- There is risk of fire or electric shock.



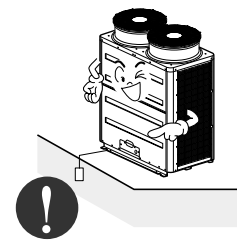
For electrical work, contact the dealer, seller, a qualified electrician, or an Authorized Service Center.

- 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.



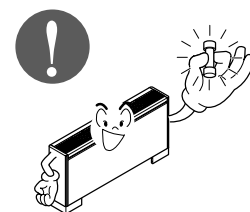
Always install a dedicated circuit and breaker.

- Improper wiring or installation may cause fire or electric shock.



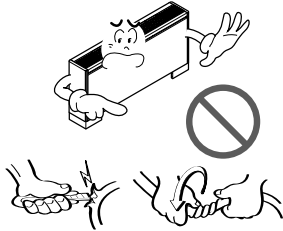
Use the correctly rated breaker or fuse.

- There is risk of fire or electric shock.



Do not modify or extend the power cable.

- There is risk of fire or electric shock.



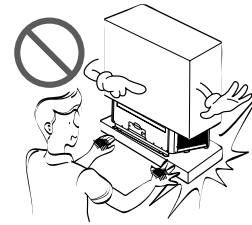
Do not let the air conditioner run for a long time when the humidity is very high and a door or a window is left open.

- Moisture may condense and wet or damage furniture.



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.



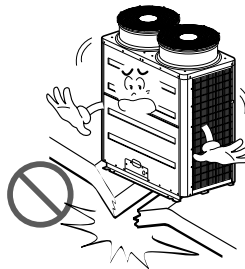
For installation, always contact the dealer or an Authorized Service Center.

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



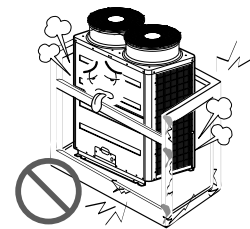
Do not install the product on a defective installation stand.

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



Be sure the installation area does not deteriorate with age.

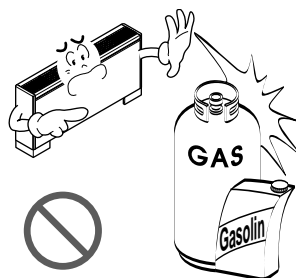
- If the base collapses, the air conditioner could fall with it, causing property damage, product failure, and personal injury.



■ Operation

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

- There is risk of fire or failure of product.

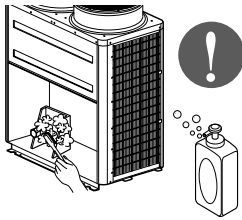


CAUTION

Installation

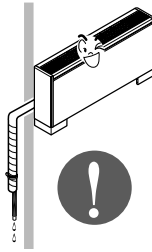
Always check for gas (refrigerant) leakage after installation or repair of product.

- Low refrigerant levels may cause failure of product.



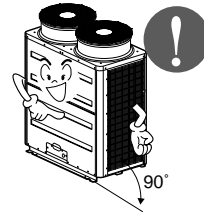
Install the drain hose to ensure that water is drained away properly.

- A bad connection may cause water leakage.



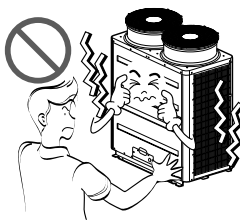
Keep level even when installing the product.

- 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.



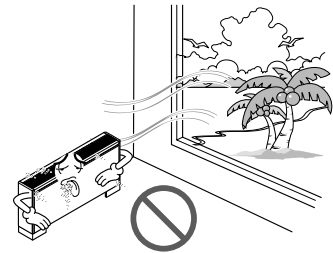
Use two or more people to lift and transport the product.

- 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.

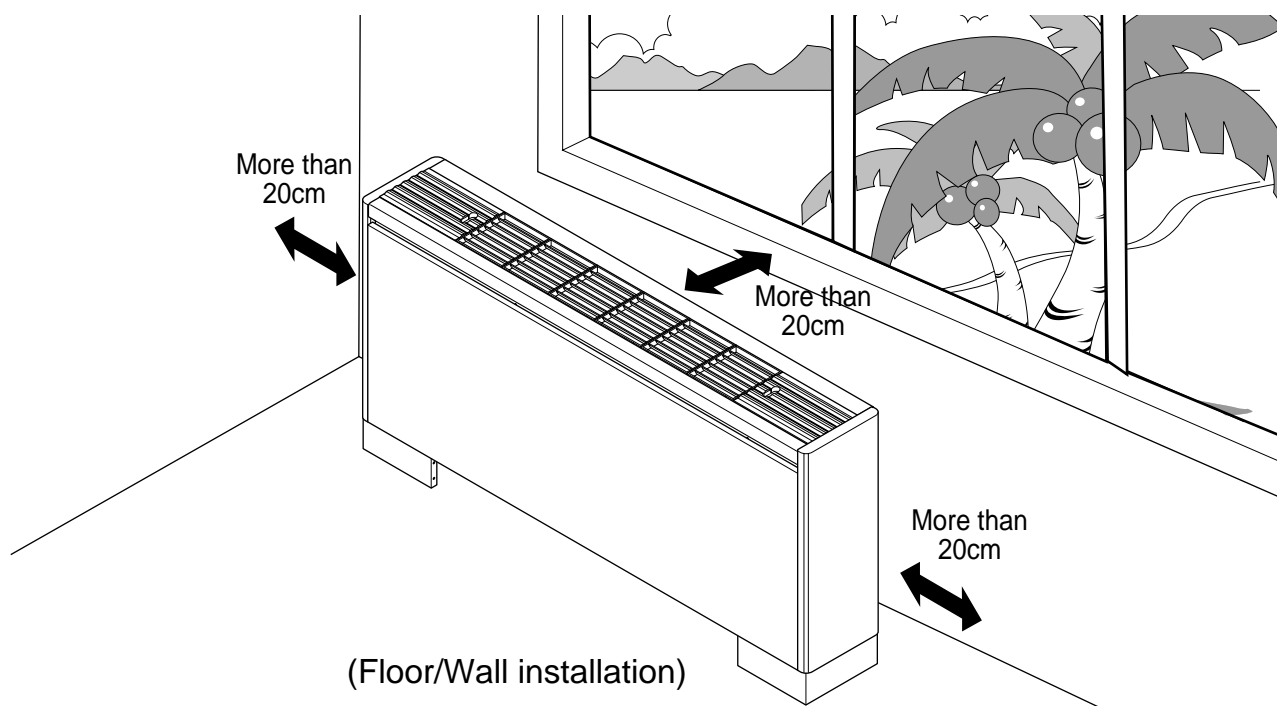


Installation

Read completely, then follow step by step.

Selection of the best location

- There should not be any heat source or steam near the unit.
- There should not be any obstacles to 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.
- The indoor unit must have the maintenance space.

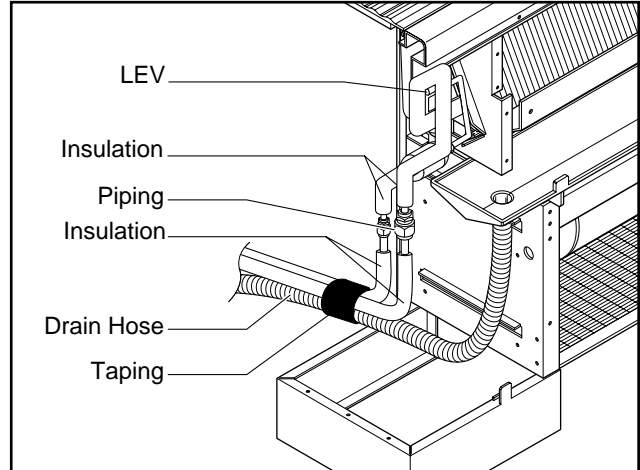


CAUTION : In case that the unit is installed near the sea, the installation parts may be corroded by salt. The installation parts (and the unit) should be taken appropriate anti-corrosion measures.

Installation of Indoor Unit

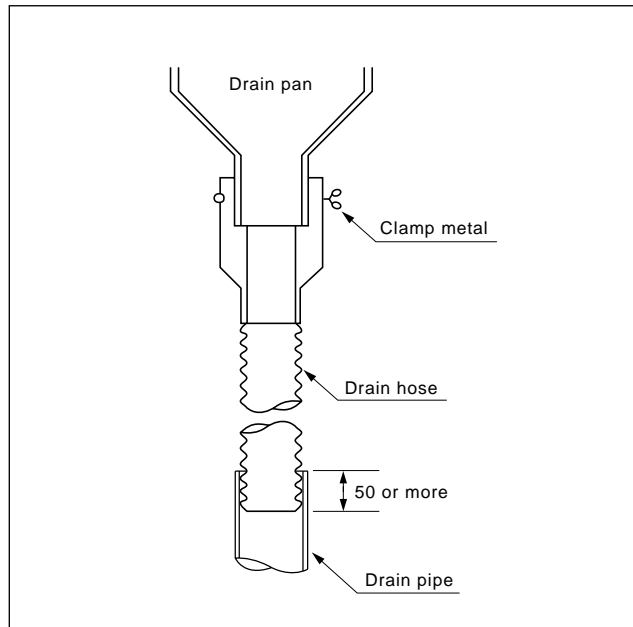
1) Connecting the pipes to the indoor unit

- After bending an end of the connecting tube, align the center of the piping and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.



2) Connecting the Drain Hose

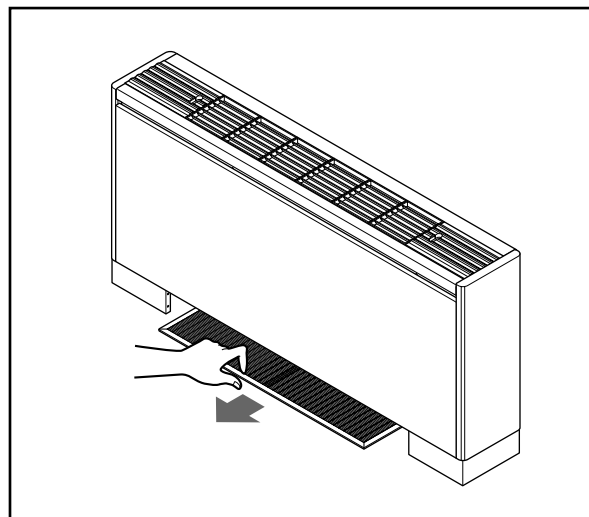
- Connect the drain hose.
- During drain piping connection, be careful not to exert extra force on the drain port on the indoor unit.
- Be sure to install heat insulation on the drain piping.



Check the Drainage

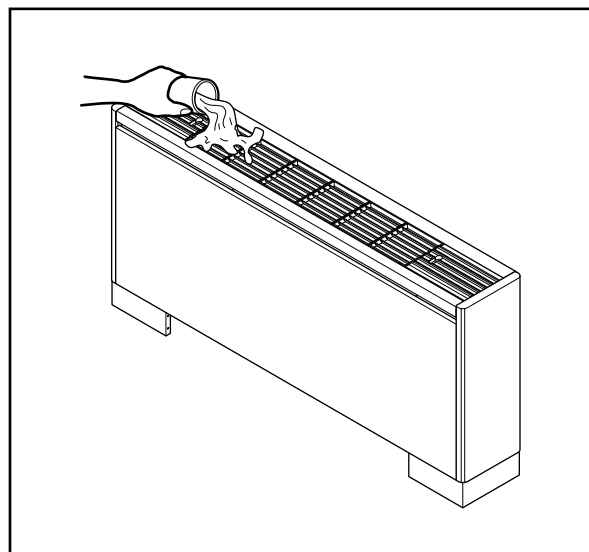
1. Remove the Air Filter.

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



2. Check the drainage.

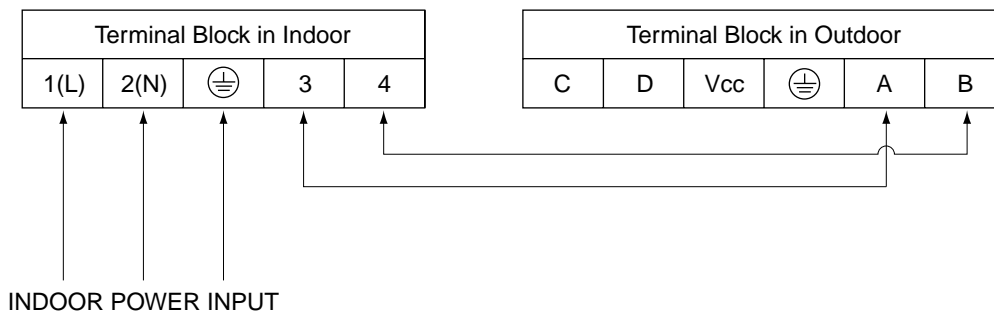
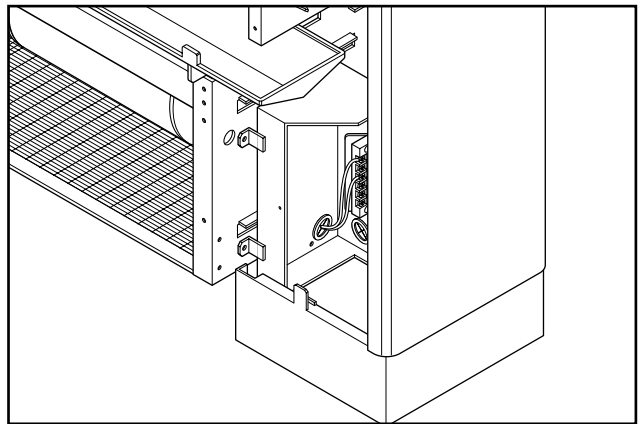
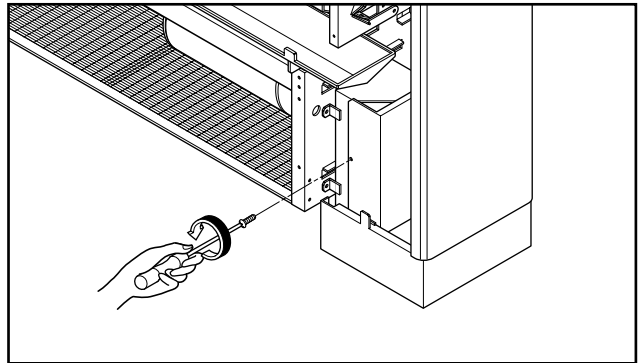
- Spray one or two glasses of water upon the evaporator.
- Ensure that water flows drain hose of indoor unit without any leakage.



Wiring connection

Connecting cables to the Indoor Unit

1. Remove the Control Box cover - L by loosening 1 screw after removing the Inlet grille from the Indoor unit.
2. Connect the wires to the terminals on the control board individually according to the outdoor unit connection.
 - Ensure that the color of the wires of outdoor unit and the terminal No. are the same as those of indoor unit respectively



WARNING : Make sure that the screws of the terminal are free from looseness.

**CAUTION:**

After the confirmation of the above conditions, prepare the wiring as follows:

- 1) **Never fail to have an individual power specialized for the air conditioner. As for the method of wiring, be guided by the circuit diagram posted on the inside of control box cover.**
- 2) **Provide a circuit breaker switch between power source and the unit.**
- 3) **The screws which fasten the wiring in the casing of electrical fittings are liable to come loose from vibrations to which the unit is subjected during the course of transportation. Check them and make sure that they are all tightly fastened. (If they are loose, it could give rise to burn-out of the wires.)**
- 4) **Specification of power source**
- 5) **Confirm that electrical capacity is sufficient.**
- 6) **Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.**
- 7) **Confirm that the cable thickness is as specified in the power sources specification. (Particularly note the relation between cable length and thickness.)**
- 8) **Never fail to equip a leakage breaker where it is wet or moist.**
- 9) **The following troubles would be caused by voltage drop-down.**
 - Vibration of a magnetic switch, damage on the contact point, fuse breaking, disturbance by the normal function of an overload protection device.
 - Proper starting power is not given to the compressor.

HAND OVER

Teach the customer the operation and maintenance procedures, using the operation manual. (air filter cleaning, temperature control, etc.)

Installation of Remote Controller

- 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

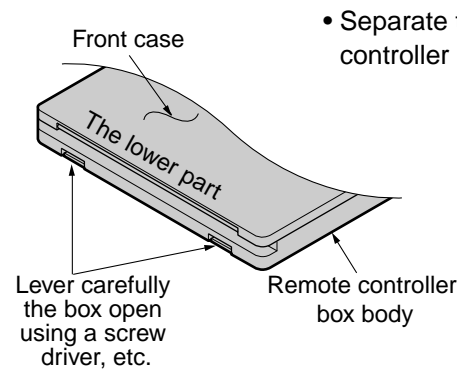
- Select places that are not splashed with water.
- Select controller position after receiving customer approval.
- The room temperature sensor is built in the indoor unit.
- This remote controller equipped with liquid crystal display. If this position is higher or lower, display is difficult to see.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

Routing of the remote controller cord

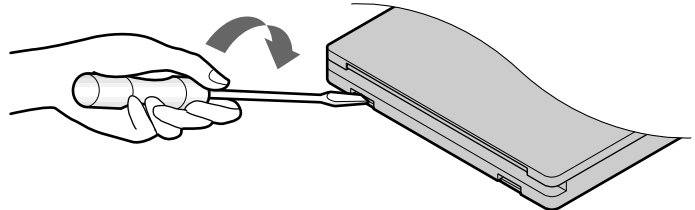
- Keep the remote controller cord away from the refrigerant piping and the drain piping.
- To protect the remote controller cord from electrical noise, place the cord at least 5cm away from other power cables. (audio equipment, television set, etc.)
- If the remote controller cord is secured to the wall,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

WIRED REMOTE CONTROLLER INSTALLATION

DISASSEMBLING

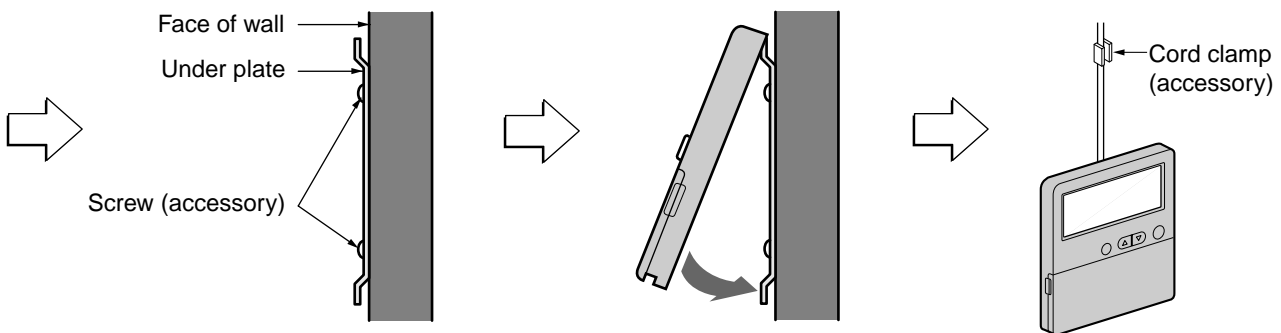


- Separate the under plate from Remote controller box.
- Attach insulator to under plate.

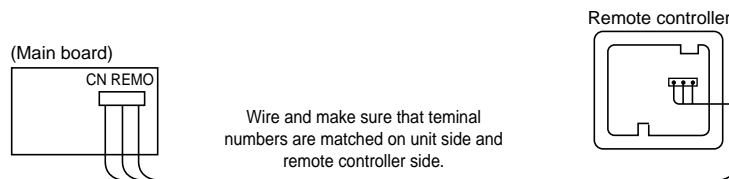


- Fix the under plate on the wall

- Fix the cord clamps on the wall by $\varnothing 3$ tapping screws (accessory).
- Fix the remote controller cord.



ELECTRICAL WIRING



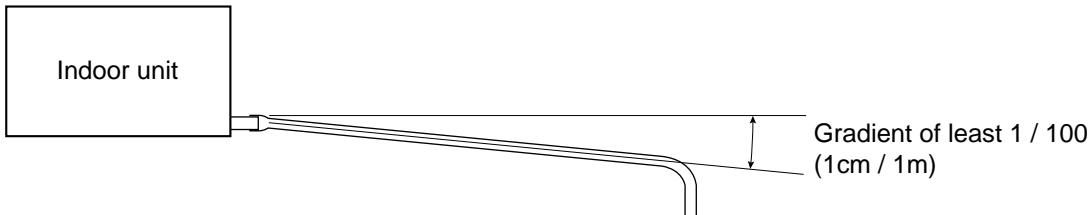
Wire and make sure that terminal numbers are matched on unit side and remote controller side.

The maximum length of the cord is 100m.
If the length of the cord exceeds 50m,
use a wire size greater than 0.5mm².

Drain Pipe Work

1) Drain pipe gradient and support

- a) - The drain pipe must be fitted at a gradient of at least 1/100.
- The drain pipe should be as short as possible and free from airlocks.



- b) - Suspension bolts should be used the support long stretches of drain pipe in order to ensure that a gradient of 1/100 is maintained. (PVC pipe should not be bent)

Spacing of supports for horizontal piping

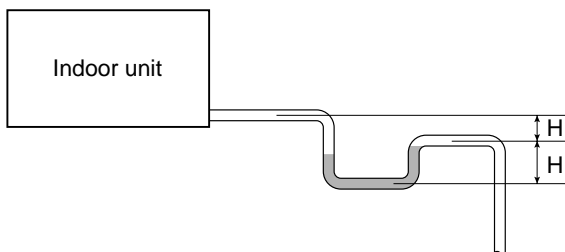
Class	Norminal diameter	Spacing
Rigid PVC pipe	25~40mm	1.0m or less

- c) - The length of pipe laid horizontally should be kept a minimum.

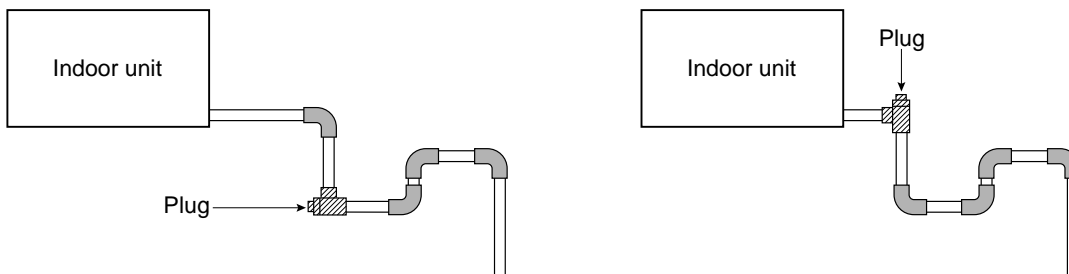
2) Drain trap

Fit any indoor unit whose drain pipe connection is subjected to negative pressure, with a drain trap.

- a) Rig the drain trap shown in the drawing below.



- b) Provide one trap per unit. A single trap for converging units will prove ineffective.
- c) Rig the trap to allow for future changing.



✱ Important points

- The drain pipe should be at least equal in size to a drain pipe of each indoor unit.
- The drain pipe is thermally insulated to prevent the formation of condensation inside the pipe.
- All connections should be secure. (Special care is needed with PVC pipe)
- Insulate auxiliary drain hose with thermal insulation band.

