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INSTALLATION MANUAL

AIR CONDITIONER

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.
※ This product contains Fluorinated Greenhouse Gases. (R410A)

Floor Standing(Console)

Original instruction

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P/NO : MFL67855505

www.lg.com

Safety Precautions

To prevent the injury of 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.

- The meanings of the symbols used in this manual are as shown below.

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



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.**

⚠ 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.

Use a vacuum pump or Inert (nitrogen) gas when doing leakage test or air purge. Do not compress air or Oxygen and Do not use Flammable gases. Otherwise, it may cause fire or explosion.

- There is the risk of death, injury, fire or explosion.

■ 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.

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

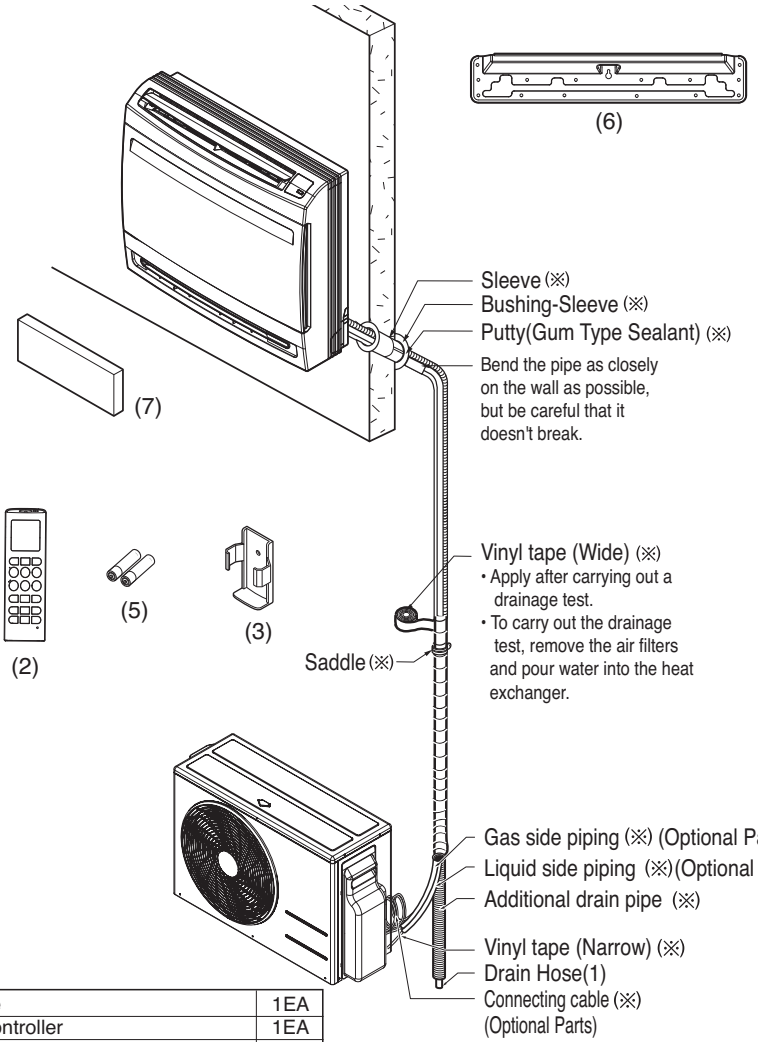
Do not recharge or disassemble the batteries. Do not dispose of batteries in a fire.

- 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.

1. Installation Map



ACCESSORIES

(1)	Drain Hose	1EA
(2)	Remote Controller	1EA
(3)	Remote Controller Holder	1EA
(4)	Fixing Screw for R.Controller Holder	2EA
(5)	Battery (AAA)	2EA
(6)	Install plate	1EA
(7)	Allergy Filter	1EA
(8)	Fixing Screw for Install Plate 4*25mm	5EA
(9)	Wood Screw for Indoor fixation	6EA

※ (4),(8),(9) → Screw

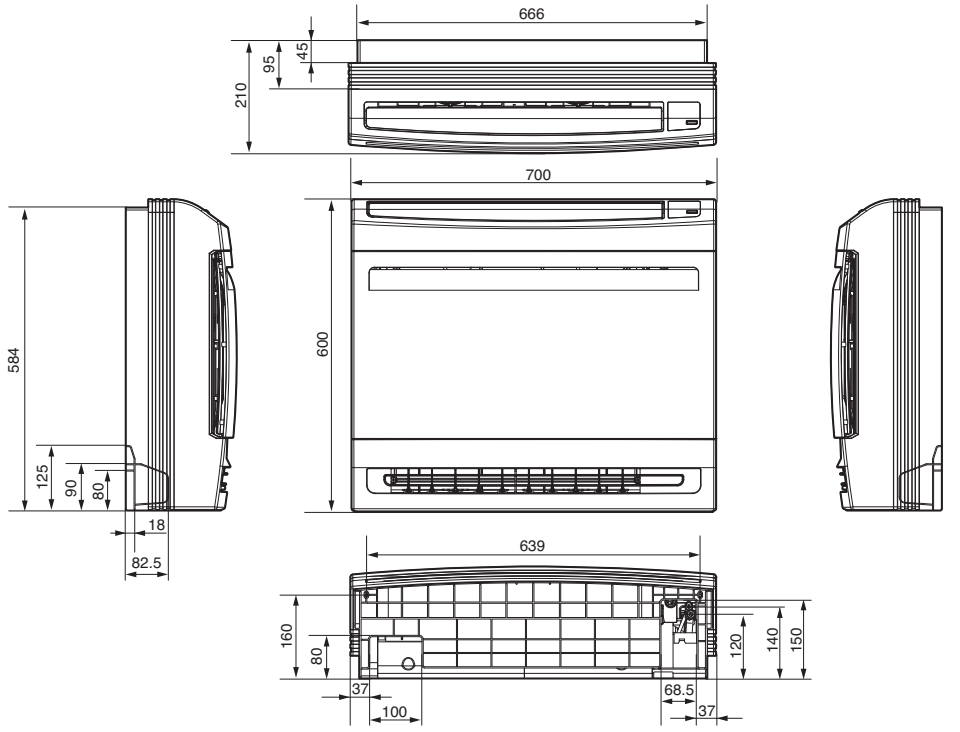
- The feature can be changed according to type of model.
  (This feature is for single outdoor unit)

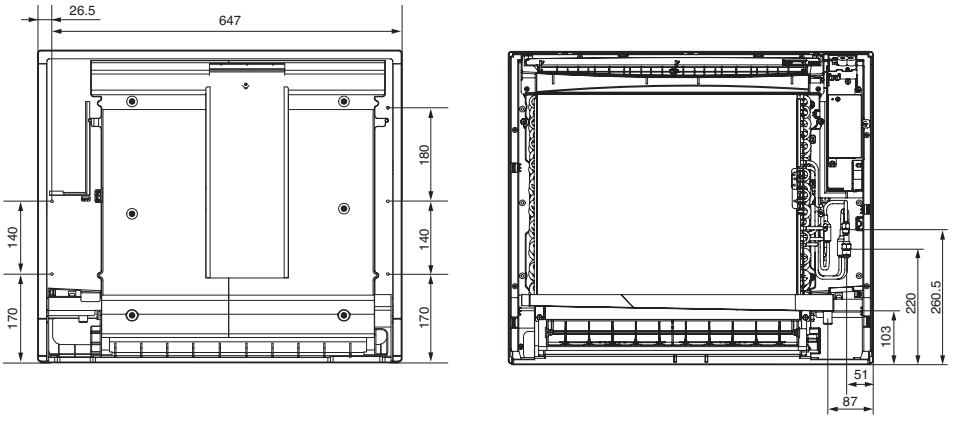
NOTICE

(※) You should purchase the installation parts.

2. Drawing of the indoor unit

AQNHGALAD**





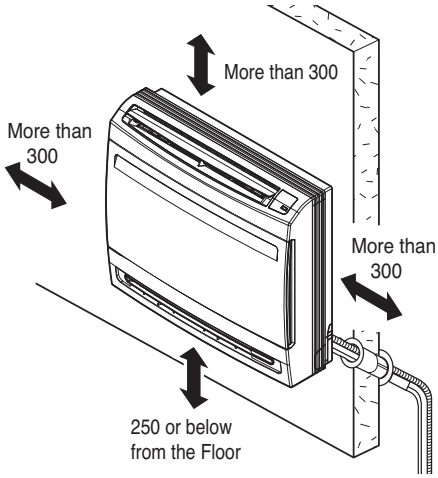
(Unit : mm)

3. Choosing an installation Site

1.There should not be any heat or steam near the unit.
2. Select a place where there are no obstacles around 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 300mm.
6. Use a metal detector to locate studs to prevent unnecessary damage to the wall.
7. Keep away from electronic ignition type fluorescent lamps as they may shorten the remote controller range.
8. Please check at least 1m away from television or radio.(It cause interference with the picture or sound.)

NOTICE

- Before choosing the installation site, please obtain user approval
- If the unit is installed below a window,check the interference of window curtain.(more than 300mm)

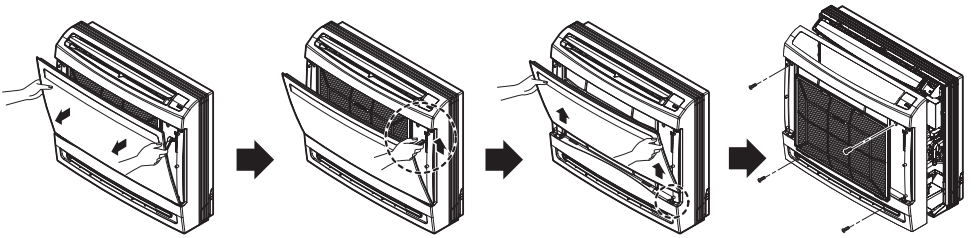


(Unit : mm)

4. Indoor unit installation

4-1.Preparation / Removing front panel

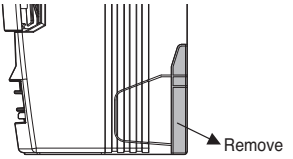
1. Open the front grille by pulling forward
2. Then pull out the link of grille from groove in front panel.
3. Then pull out 2 hinges of grille from grooves in front panel.
4. Then remove 4 screws, dismount the front panel while pulling it forward.



4-2. Preparation / For Moldings , Side Piping, and Concealed Installation

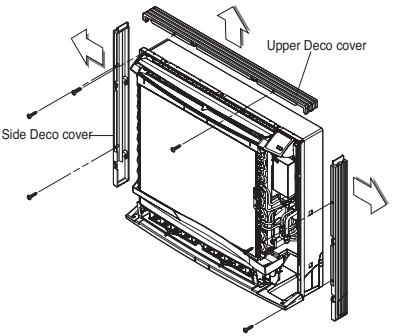
4-2-1 For Moldings

1. Remove the slit portions on the Rear Panel.



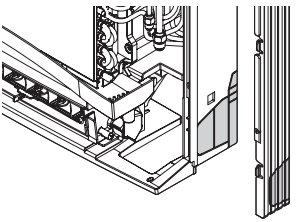
4-2-2 For Concealed Installation

1. Remove the 6 screws.
2. Remove the Upper Deco cover.
3. Remove the Side Deco covers.



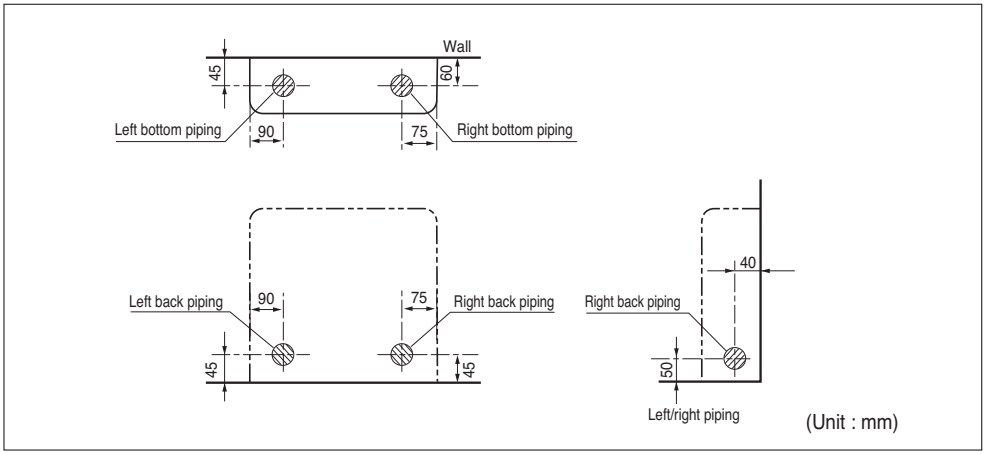
4-2-3 For Side Piping (Reference 4-2-2.)

1. Remove the Deco Covers.
2. Remove the slit portions
3. Assemble the Deco Covers.



4-3.Refrigerant Piping

1. The location of hole is different depending on which side of the pipe is taken out.
2. Drill a hole (Ø70mm)in the point indicated by ▨ symbol in the illustration as below

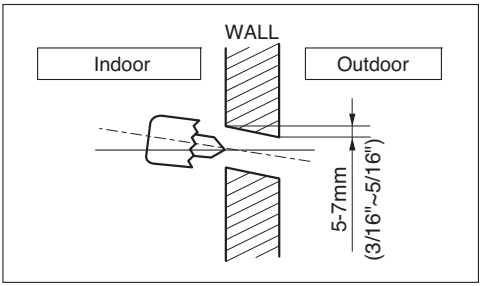


NOTICE

- The suggested shortest pipe length is 5m,in order to avoid noise from the outdoor unit and vibration.

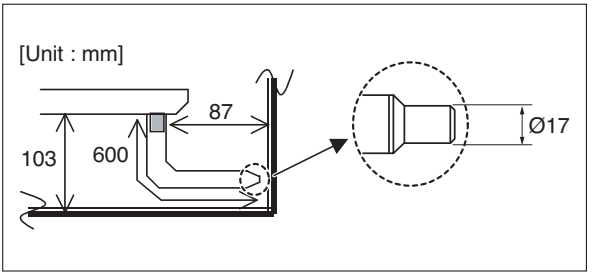
4-4.Drill a Hole in the wall

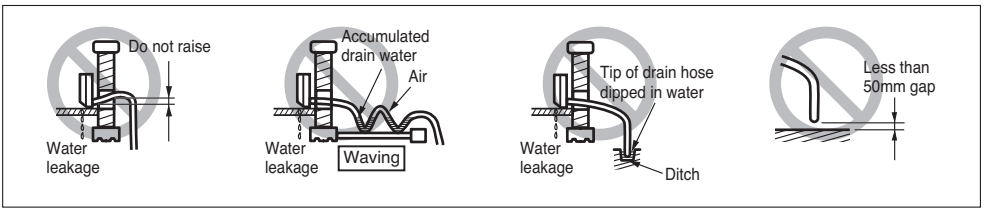
• Drill the piping hole with a ø70mm hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side.



4-5.Drain piping

1. The Outer diameter of Drain Hose (which is supplied with indoor unit) is 17mm at connecting end,600mm long.
2. Use commercial rigid PVC pipe for extension.
3. Insulate the indoor drain pipe with 10mm or more of insulation material to prevent condensation.





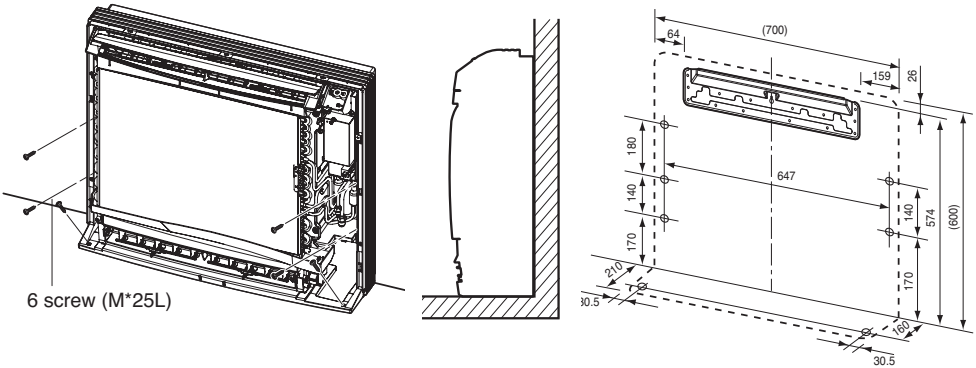
NOTICE

- The drain pipe should be inclined downward so that water will flow smoothly without any accumulation.

4-6. Installing Indoor unit

4-6-1 Installation on the Floor.

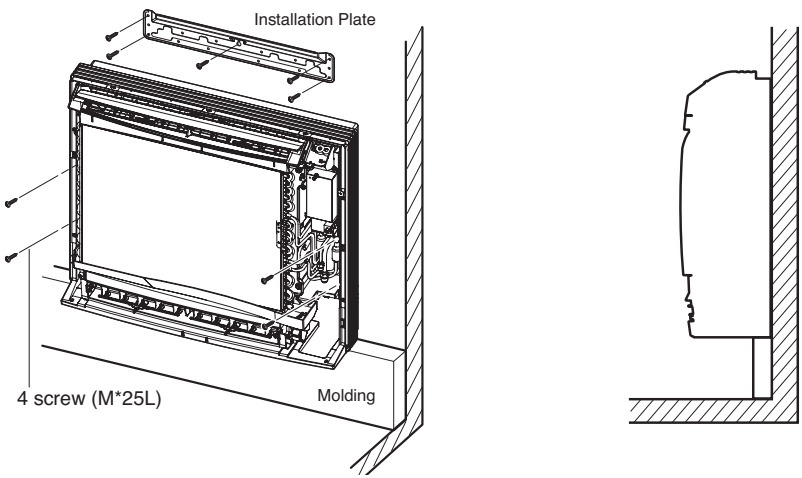
1. Fix up using 6 screws for floor installation.



(Unit : mm)

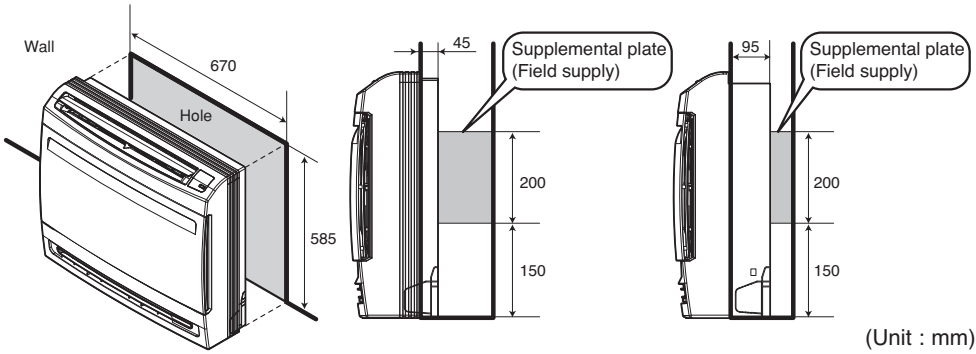
4-6-2 Installation on the Wall

1. Fix up the installation plate using 5 screws and the indoor unit using 4 screws.
2. The installation plate should be fixed on a wall which can support the weight of the indoor unit.



4-6-3 Half concealed installation.

1. Make a wall hole of the size shown Fig-1.



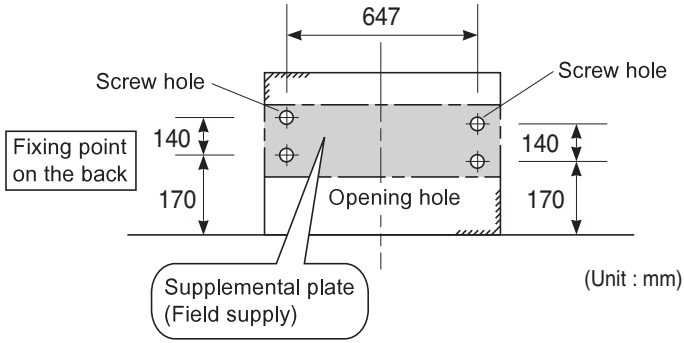
<Fig - 1>

1) Normal concealed

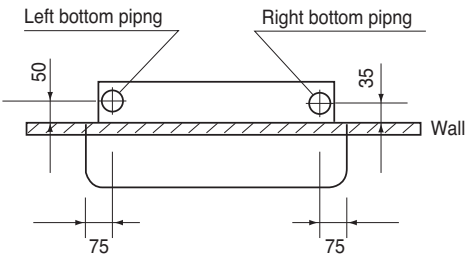
2) Deep concealed

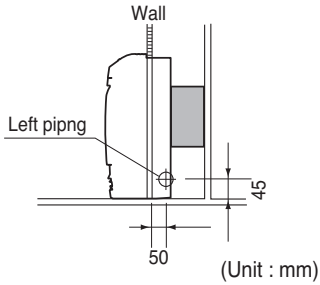
2. Installation of supplemental plate for attaching main unit

• The rear of the unit can be fixed with screws at the points shown in the Fig-2.Be sure to install the supplemental plate in accordance with the depth of the inner wall.



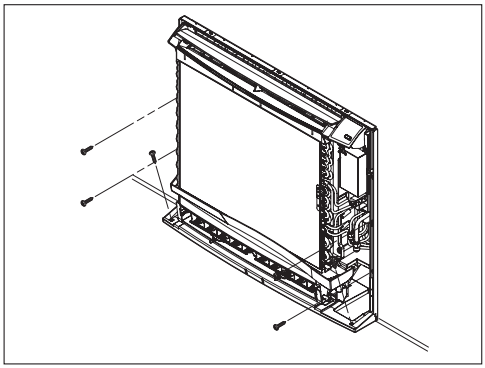
3.Piping Hole





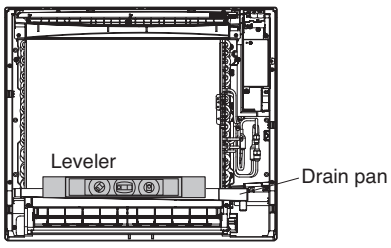
(Unit : mm)

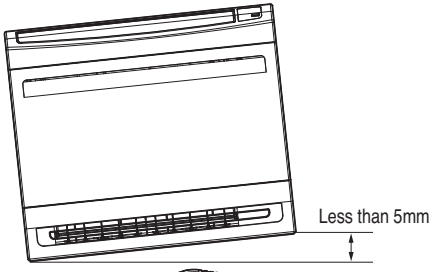
4. Remove the Deco Covers and Fixing Indoor Unit
   1) Remove the Deco Covers.(Reference 4-2-2.)
   2) Insert the Indoor Unit to the Wall hole.
   3) Secure using 6 screws. (shown in the illustration)

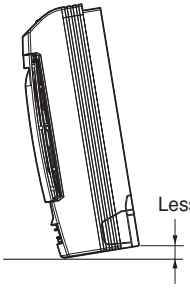


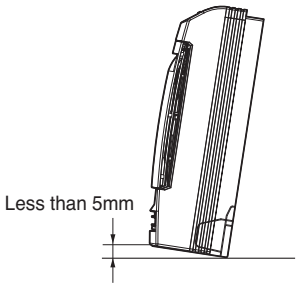
NOTICE

- Check the horizon of Indoor unit with the wall. Please use the Leveler on the drain pan guide.







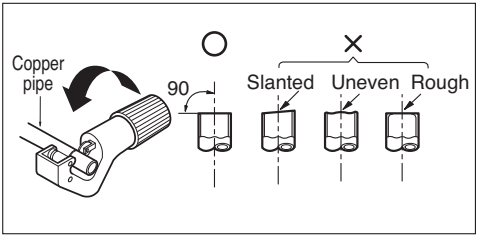


5. Flaring Work

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

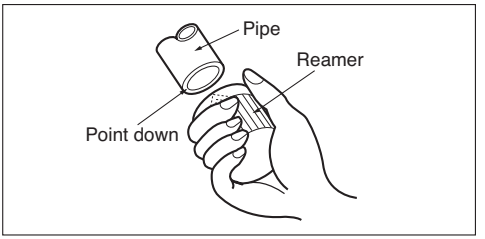
Cut the pipes and the cable.

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.



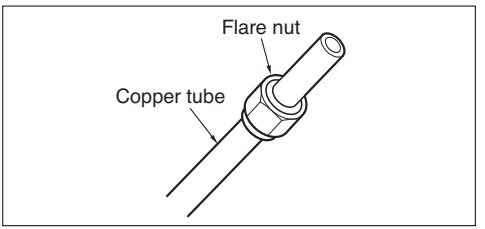
Burrs removal

1. Completely remove all burrs from the cut cross section of pipe/tube.
2. While removing burrs put the end of the copper tube/pipe in a downward direction while removing burrs location is also changed in order to avoid dropping burrs into the tubing.



Putting nut on

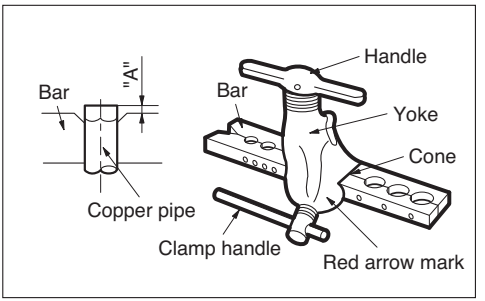
• Remove flare nuts attached to indoor and outdoor unit, then put them on pipe/tube having completed burr removal.
(not possible to put them on after finishing flare work)



Flaring work

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

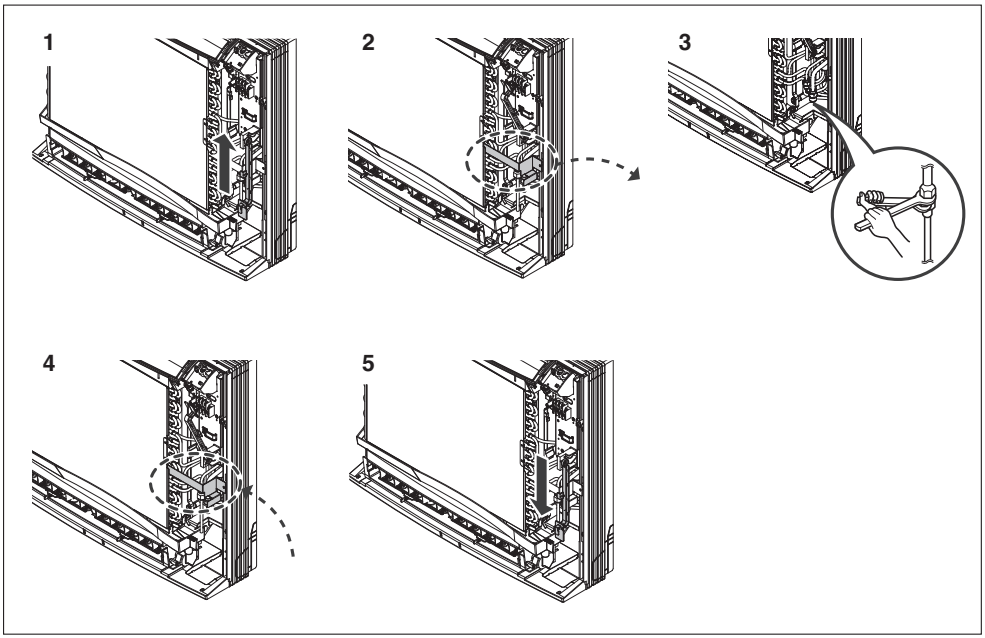
Outside diameter		A
mm	inch	mm
Ø6.35	1/4	1.1~1.3
Ø9.52	3/8	1.5~1.7
Ø12.7	1/2	1.6~1.8
Ø15.88	5/8	1.6~1.8
Ø19.05	3/4	1.9~2.1



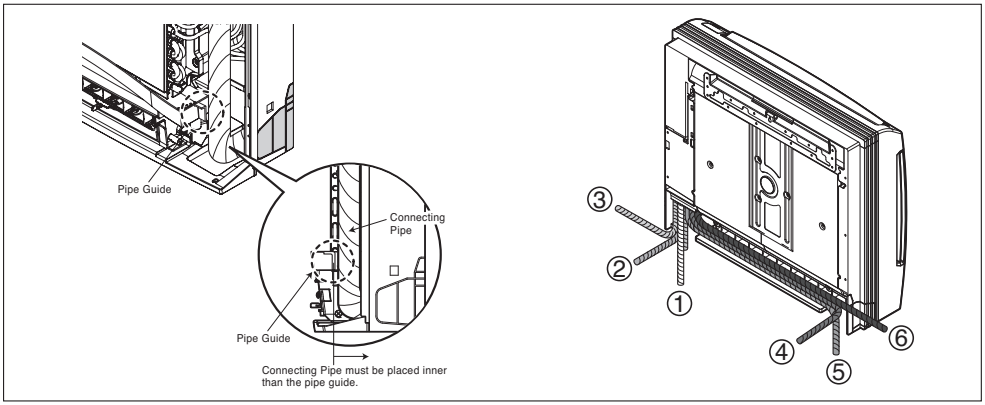
6. Connecting the Piping

When you connect the refrigerant pipe, it is easier that you connect the gas pipe first.

1. Hold up the Sensor Link.
2. Separate the Pipe Bracket (2 screws)
3. Connect the refrigerant pipe. (Refer to next page)
4. Assemble the Pipe Bracket (2 screws)
5. Put down the Sensor Link



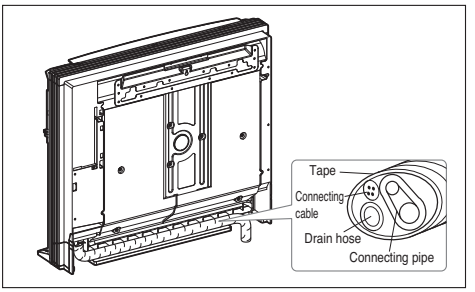
6. After connecting, check the pipe arrangement as per illustration.
7. The piping can be arranged in six ways as shown in the illustration below.



⚠ CAUTION

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.

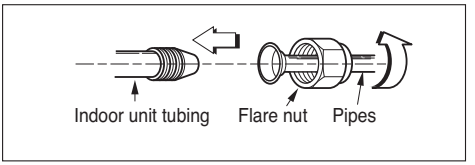
* Foamed polyethylene or equivalent is recommended.

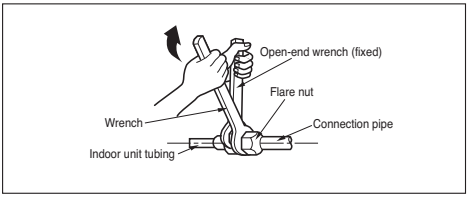


Connecting the installation pipe and drain hose to the indoor unit.

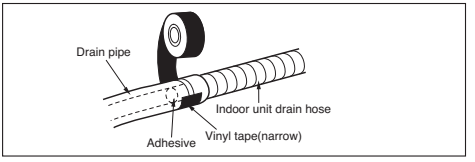
1. Align the center of the pipes and sufficiently tighten the flare nut by hand.
2. Tighten the flare nut with a wrench

Outside diameter		Torque
mm	inch	kgf·m
Ø6.35	1/4	1.8~2.5
Ø9.52	3/8	3.4~4.2
Ø12.7	1/2	5.5~6.5
Ø15.88	5/8	6.3~8.2
Ø19.05	3/4	9.9~12.1



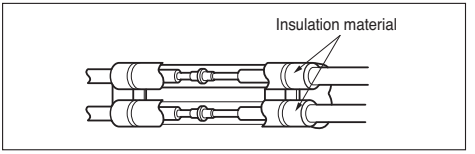


3. When needed to extend the drain hose of indoor unit, assembly the drain pipe as shown on the drawing

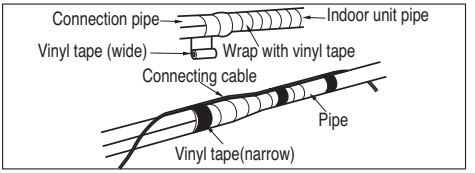


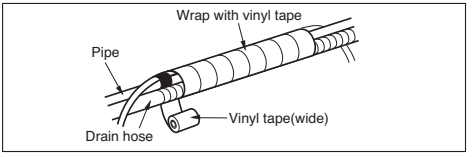
Wrap the insulation material around the connecting portion.

1. Overlap the connection pipe insulation material and the indoor unit pipe insulation material. Bind them together with vinyl tape so that there may be no gap.
2. Wrap the area which accommodates the rear piping housing section with vinyl tape.



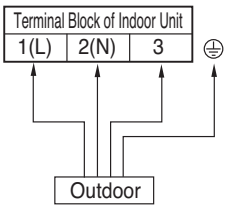
3. Bundle the piping and drain hose together by wrapping them with vinyl tape sufficient enough to cover where they fit into the rear piping housing section.

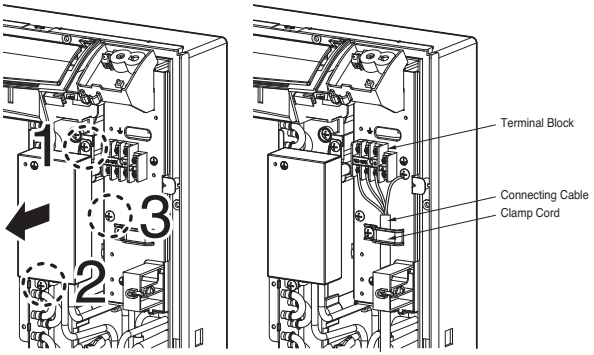




7. Wiring Connection

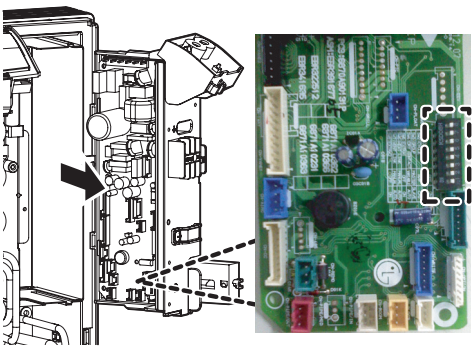
1. Loosen No 1,2 screws of control box cover.
2. Connect the cable to the Terminal block as below diagram





3. Secure the cable onto the Control panel with the Clamp cord.

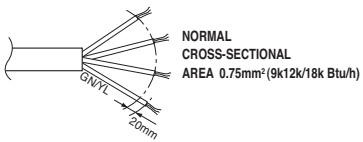
4. If indoor unit's setting is needed, loosen No.3 screw and lift up the PCB. (option: usage of bottom vanes, limit angle of top vane)



Dip S/W	Description	S/W OFF	S/W ON
S/W 5	Install scene	Exposed	Half Concealed
S/W 7	Vane	Top+Bottom vane	Top vane only

⚠ CAUTION

The connecting cable connected to the indoor and outdoor unit should be complied with the following specifications (Rubber insulation, type H05RN-F approved by HAR or SAA).



If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer of its service agent.

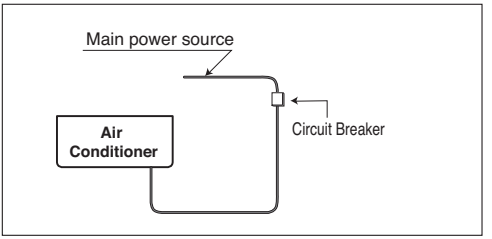
⚠ WARNING:
Make sure that the screws of the terminal are free from looseness.

8. Electrical Wiring

1. All wiring must comply with LOCAL REGULATIONS.
2. Select a power source that is capable of supplying the current required by the air conditioner.
3. Feed the power source to the unit via a distribution switch board designed for this purpose.
4. The terminal screws inside the control box may be loose due to vibration during transport. Check the screws for loose connection.
   (Running the air conditioner with loose connection can overload and damage electrical components.)
5. Always ground the air conditioner with a grounding wire and connector to meet the LOCAL REGULATION.

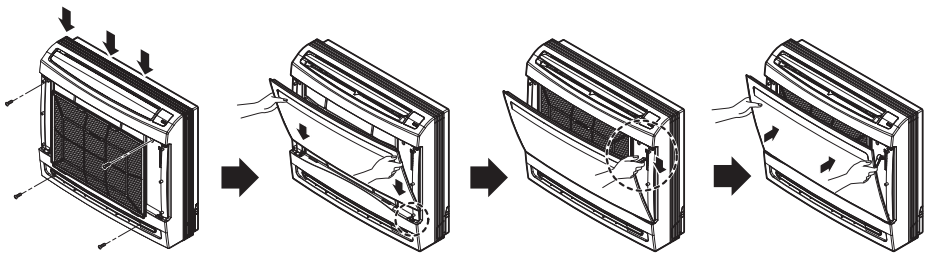
CAUTION:

- **The circuit diagram is not subject to change without notice.**
- **Be sure to connect wires according to the wiring diagram.**
- **Connect the wires firmly, so that not to be pulled out easily.**
- **Connect the wires according to color codes by referring the wiring diagram.**



9. Installation of Front Panel

1. Fit the Front Panel onto the indoor unit and push the upper area that are marked with arrows
2. Check the air sensor and install the 4 screws
3. Then assemble the front grille and put the hinges
4. Close the grille.

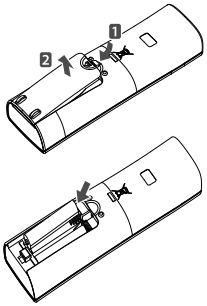


10. Test Running

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 sliding it back into position.

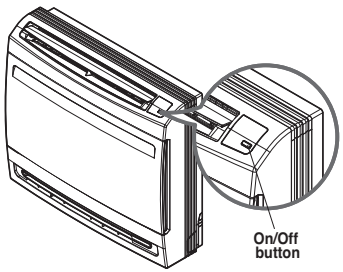


NOTICE

1. Always use/replace both batteries of same type.
2. If the system is not to be used for a long time, remove the batteries to save their working life.
3. If the display screen of remote controller starts, fading replace both of the batteries.
4. Use 2 AAA(1.5 volt) batteries.

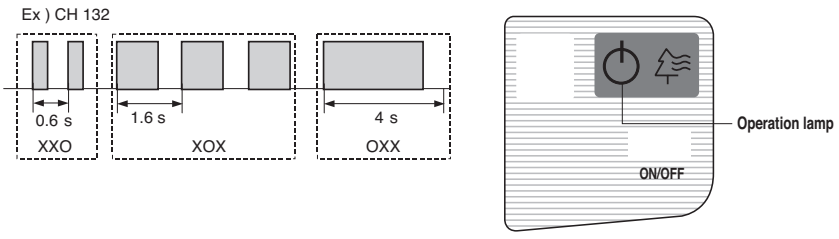
Test operation

During the TEST OPERATION, the unit operates in cooling mode at high speed fan, regardless of room temperature and resets in 18 minutes. During test operation, if remote controller signal is received, the unit operates as remote controller sets. If you want to use this operation, **Press and hold the ON/OFF button for 3~5 seconds**, then the buzzer sound 1 'beep'. If you want to stop the operation, re-press the button.



Self-Diagnosis Function

This unit has an inbuilt error diagnosis capability. Error is displayed by 'RED' Operation Lamp. Please contact your serviceman/dealer in such a situation

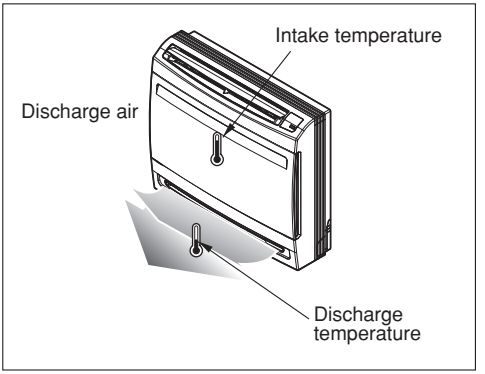


Evaluation of the performance

Operate the unit for 10~15 minutes, then check the system refrigerant charge:

1. Measure the pressure of the gas side service valve.
2. Measure the air temperature from inlet and outlet of air conditiioner.
3. Ensure the difference between the inlet and outlet temperature is more than 8°C.
4. For reference; the gas side pressure at optimum condition is shown on table (cooling)

The air conditioner is now ready to use.



Refrigerant	Outside ambient TEMP.	The pressure of the gas side
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 under-charged, and charge should be added.


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