English
Français
Español



DAIKIN ROOM AIR CONDITIONER

INSTALLATION MANUAL

R410A Split Series

INVERTER

EMURA

Installation manual
Manuel d'installation
Manual de instalación

MODELS

FTXR09WVJUW9
FTXR12WVJUW9
FTXR18WVJUW9
FTXR09WVJUS9
FTXR12WVJUS9
FTXR18WVJUS9

Contents

Safety Considerations 1

Accessories 3

Choosing an Installation Site 3

1. Indoor unit 3
2. Wireless remote controller 3

Indoor Unit Installation Diagram 4

Indoor Unit Installation 5

1. Installing the mounting plate 5
2. Drilling a wall hole and installing wall embedded pipe ... 5
3. Installing the indoor unit 6
4. Wiring 8
5. Drain piping 9

Refrigerant Piping Work 9

1. Flaring the pipe end 10
2. Refrigerant piping 10

Installation Tips 11

1. Removing and installing the upper front panel 11
2. Removing and installing the front grille 11
3. How to set the different addresses 12
4. When connecting a wireless LAN connecting adapter 12
5. When connecting to an HA system 13

Trial Operation and Testing 14

1. Trial operation and testing 14
2. Test items 14

The pictures in this document are for illustrative purposes only.

Safety Considerations

Refer also to the General Safety Considerations in the separate booklet.

	**Read the precautions in this manual carefully before operating the unit.**

Read these **Safety Considerations for Installation** carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation.
Instruct the user on how to operate and maintain the unit.
Inform users that they should store this installation manual with the operation manual for future reference.
Always use a licensed installer or contractor to install this product.
Improper installation can result in water or refrigerant leakage, electric shock, fire, or explosion.
Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

⚠ **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

⚠ **NOTE** ..... Indicates situations that may result in equipment or property damage accidents only.

⚠ DANGER

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak can lead to oxygen depletion, especially in basements, and an asphyxiation hazard could occur leading to serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding can cause a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes could cause a gas leak and potential explosion causing severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas may produce toxic gas if it comes into contact with fire. Exposure to this gas could cause severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that can cause serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation may cause injuries or death by suffocation.

⚠ WARNING

- Only qualified personnel licensed or certified in their jurisdiction must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation may result in water leakage, electric shock, or fire.
- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, can lead to oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts may result in water leakage, electric shock, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength may result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation may result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel licensed or certified in their jurisdiction according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction may lead to electric shock or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.

- When wiring, position the wires so that the electrical wiring box cover can be securely fastened. Improper positioning of the electrical wiring box cover may result in electric shock, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- The circuit must be protected with safety devices in accordance with local and national codes, i.e. a circuit breaker.
- Securely fasten the outdoor unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the outdoor unit causing fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit can cause an abnormal pressure rise or rupture, resulting in equipment damage and even injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may occur.
- Do not use means to accelerate the defrosting process (if possible) or to clean, other than those recommended by the manufacturer.
- The appliance must be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odor.
- Comply with national gas regulations.

⚠ CAUTION

- Do not touch the switch with wet fingers. Touching a switch with wet fingers can cause electric shock.
- Do not allow children to play on or around the unit to prevent injury.
- Wear adequate personal protective equipment (protective gloves, safety glasses,…) when installing, maintaining or servicing the system.
- The heat exchanger fins are sharp enough to cut. To avoid injury, wear gloves or cover the fins while working around them.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. Your hands may suffer burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to ensure proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may occur.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R410A in the system must be kept clean, dry, and tight.

  (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.

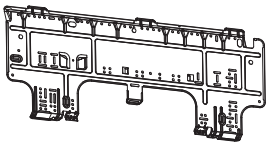
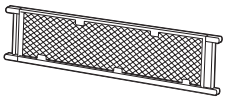
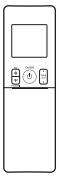
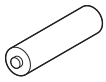
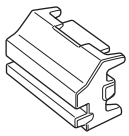
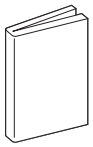
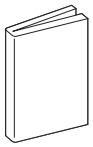
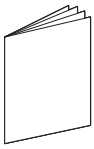
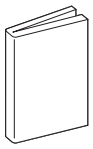
  (b) Tight -- R410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection again harmful ultraviolet radiation. R410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping Work* and follow the procedures.
- Since R410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
- The indoor unit is for R410A. See the catalog for outdoor models that can be connected. Normal operation is not possible when connected to non-compatible outdoor units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors.
- Do not install the air conditioner or heat pump in the following locations:
  (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.
  Plastic parts may deteriorate and fall off or result in water leakage.
  (b) Where corrosive gas, such as sulfurous acid gas, is produced.
  Corroding copper pipes or soldered parts may result in refrigerant leakage.
  (c) Near machinery emitting electromagnetic waves.
  Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
  (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled.
  Operating the unit in such conditions can cause a fire.
- Take adequate measures to prevent the outdoor unit from being used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke, or fire. Instruct the user to keep the area around the unit clean.
- Servicing shall be performed only as recommended by the manufacturer and licensed or certified in their jurisdiction.

⚠ NOTE

- The indoor unit should be positioned where the unit and inter-unit wires (outdoor to indoor) are at least 3.3ft (1m) away from any televisions or radios. (The unit may cause interference with the picture or sound.) Depending on the radio waves, a distance of 3.3ft (1m) may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Only use tools for R410A, such as a gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R410A, the refrigerant may deteriorate.
- This air conditioner or heat pump is an appliance that should not be accessible to the general public.
- As maximum allowable pressure is 604psi (4.17MPa), the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

FTN005-U

Accessories

Ⓐ Mounting plate 	1	Ⓑ Mounting plate fixing screw M4 × 1” (M4 × 25mm) 	5	Ⓒ Titanium apatite deodorizing filter 	2
Ⓓ Wireless remote controller 	1	Ⓔ Remote controller holder 	1	Ⓕ Remote controller holder fixing screw M3 × 13/16” (M3 × 20mm) 	2
Ⓖ Dry battery AAA. LR03 (alkaline) 	2	Ⓗ Indoor unit fixing screw M4 × 1/2” (M4 × 12mm) 	2	Ⓙ Screw cover 	2
Ⓚ Insulation tape 	1	Ⓛ Operation manual 	1	Ⓜ Installation manual 	1
Ⓝ Warranty 	1	Ⓟ General safety considerations 	1		

Choosing an Installation Site

Before choosing the installation site, obtain user approval.

1. Indoor unit

- The indoor unit should be positioned in a place where:

1) the restrictions on the installation requirements specified in **“Indoor Unit Installation Diagram”** on page 4 are met,
2) both the air inlet and air outlet are unobstructed,
3) the unit is not exposed to direct sunlight,
4) Install so that drainage occurs easily,
5) the unit is away from sources of heat or steam,
6) there is no source of machine oil vapor (this may shorten the indoor unit service life),
7) cool/warm air is circulated throughout the room,
8) the unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may affect the remote controller range,
9) no laundry equipment is nearby.

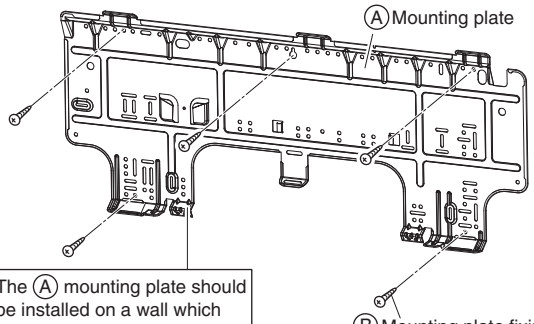
2. Wireless remote controller

Turn on all the fluorescent lamps in the room, if any, and find a location where the remote controller signals are properly received by the indoor unit (within 19-11/16ft (6m)).

Indoor Unit Installation Diagram

⚠ CAUTION

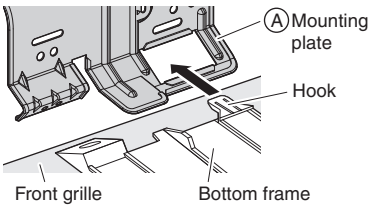
- Do not hit or violently push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.
- Do not place large objects near the INTELLIGENT EYE sensor. Also keep heating units or humidifiers outside the sensor's detection area.

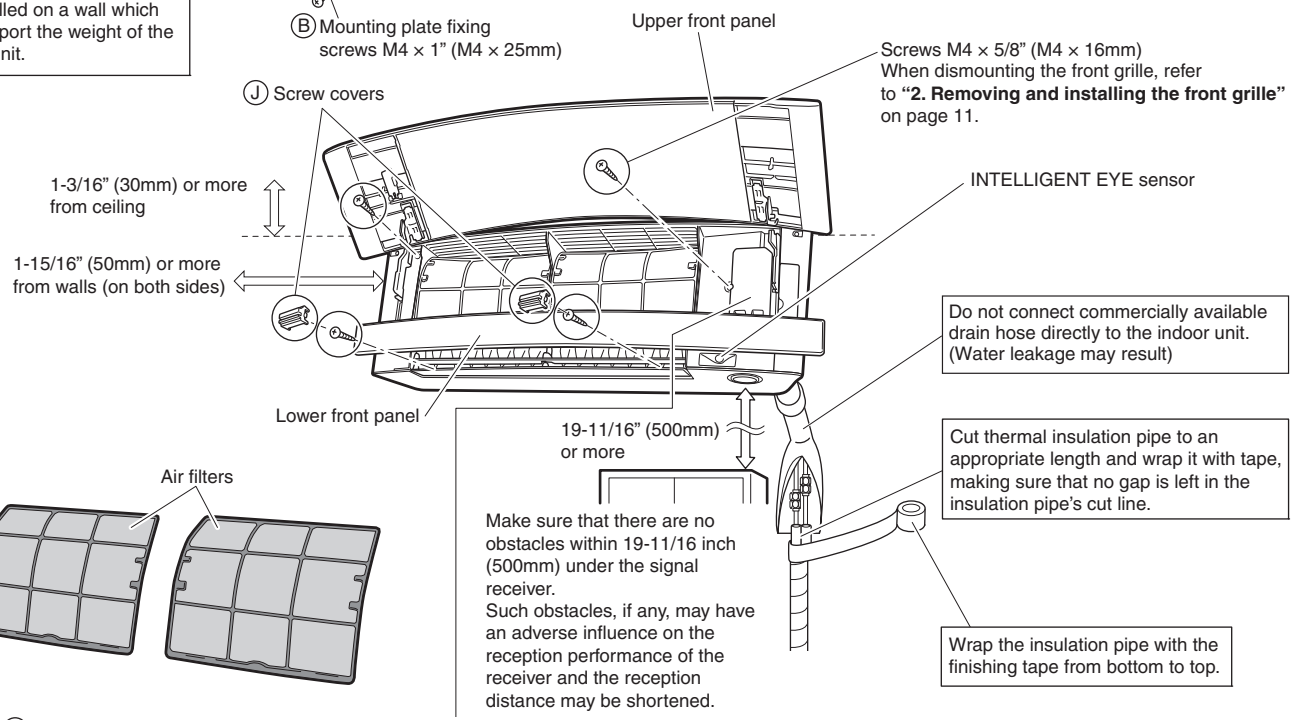


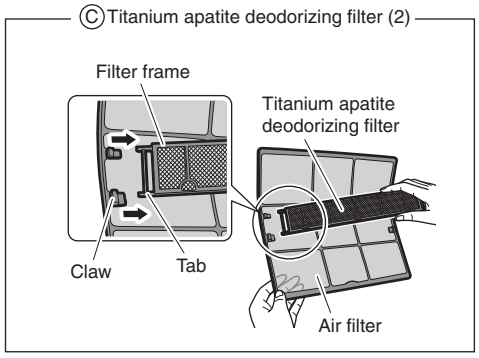
The Ⓐ mounting plate should be installed on a wall which can support the weight of the indoor unit.

■ **How to attach the indoor unit**
Hook the hooks of the bottom frame to the Ⓐ mounting plate. If the hooks are difficult to hook, remove the front grille.

■ **How to remove the indoor unit**
Push up the lower part of the front grille to release the hooks. If it is difficult to release, remove the front grille.





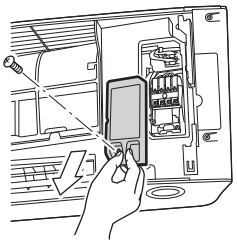


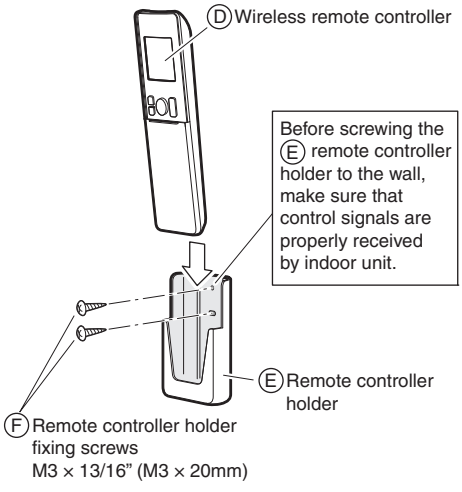
Service lid

The service lid is removable.

■ **Opening method**

1) Remove the service lid screws.
2) Pull out the service lid diagonally down in the direction of the arrow.
3) Pull down.





Indoor Unit Installation

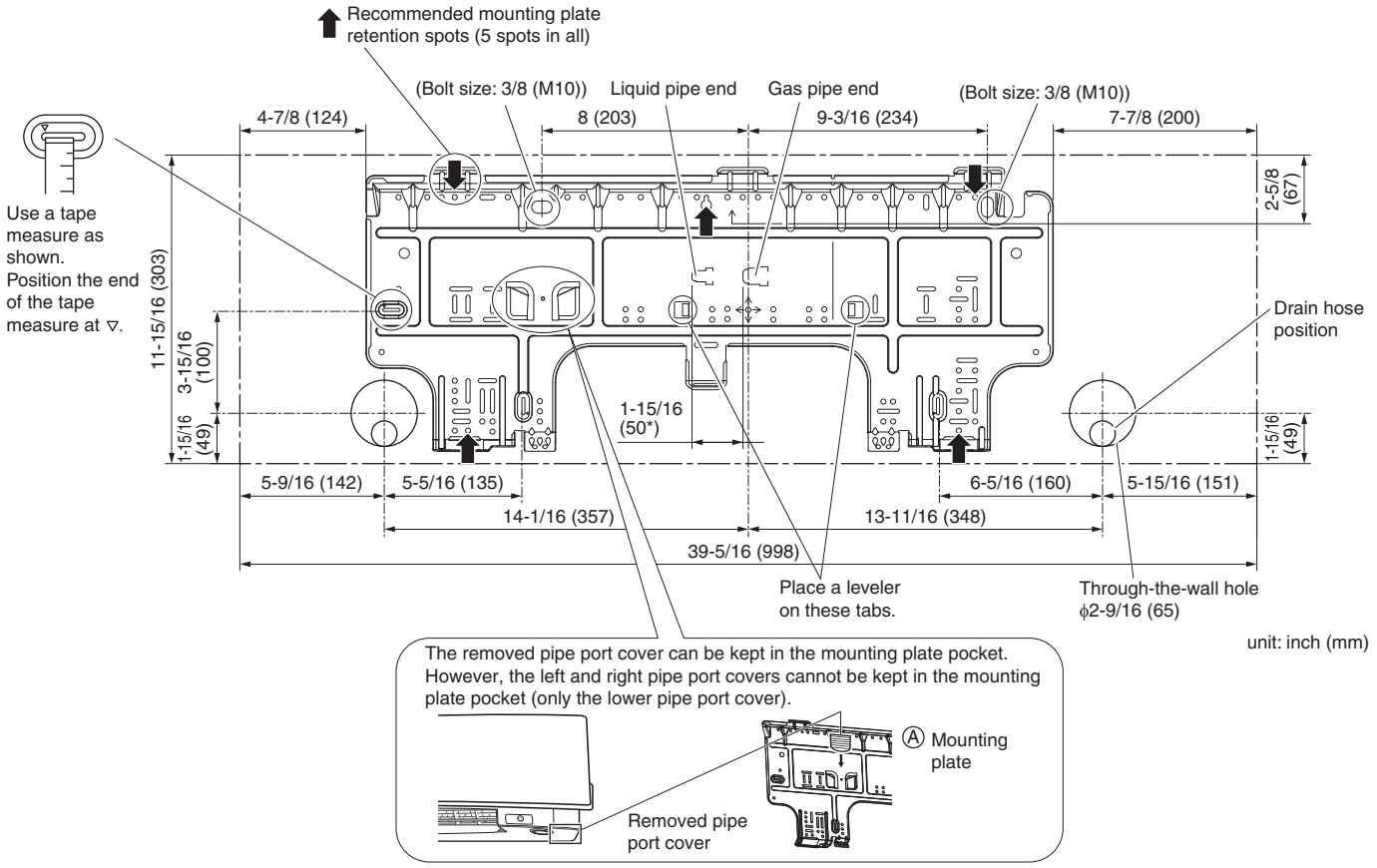
1. Installing the mounting plate

The mounting plate should be installed on a wall which can support the weight of the indoor unit.

1)Temporarily secure the mounting plate to the wall, make sure that the plate is completely level, and mark the drilling points on the wall.

2)Secure the mounting plate to the wall with screws.

Recommended mounting plate retention spots and dimensions



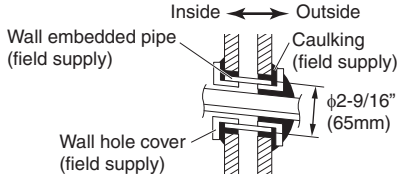
* Depending on the model, the actual distance between the liquid pipe end and gas pipe end may differ from the distance between those symbols on the mounting plate (the distance listed in this manual).
Always measure the actual distance between the liquid pipe end and gas pipe end before installing refrigerant pipes.

2. Drilling a wall hole and installing wall embedded pipe

⚠ WARNING

For metal frame or metal board walls, be sure to use a wall embedded pipe and wall hole cover in the feed-through hole to prevent possible heat, electric shock, or fire.

- Be sure to caulk the gaps around the pipes with caulking material. (to prevent condensation caused by intrusion of air from outside or within the wall)
  1) Drill a feed-through hole with a ϕ2-9/16 inch (65mm) diameter through the wall at a downward angle toward the outside.
  2) Insert a wall embedded pipe into the hole.
  3) Insert a wall hole cover into wall pipe.
  4) After completing refrigerant piping, wiring, and drain piping, caulk the pipe hole gap with putty.



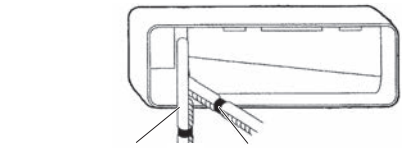
Even if a wall hole cover is not used, caulk both the outdoor and indoor sides with putty.

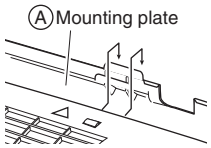
3. Installing the indoor unit

- The recommended installation method is back piping.
- **When performing bottom piping or left side piping, refer to "3-2. Left-side, left-back, or left-bottom piping".**
- Right side piping cannot be performed.
- In the case of bending or curing refrigerant pipes, keep the following precautions in mind.
  Abnormal sound may be generated if improper work is conducted.
  - Do not strongly press the refrigerant pipes onto the bottom frame.
  - Do not strongly press the refrigerant pipes on the front grille, either.

3-1. Right-back or right-bottom piping

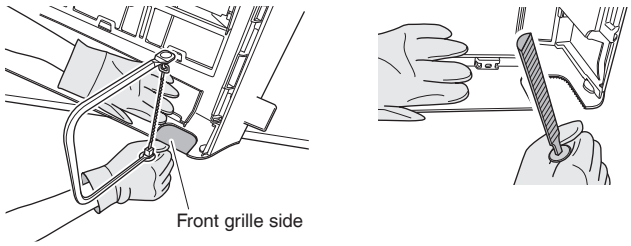
1) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
2) Wrap the refrigerant pipes and drain hose together with Ⓚ insulation tape.
3) Pass the drain hose and refrigerant pipes through the wall hole, then position the indoor unit on the Ⓐ mounting plate hooks, using the △ markings at the top of the indoor unit as a guide.





How to remove the pipe port cover

1) Cut off the pipe port cover (on the bottom of the front grille) with a copping saw.
   Apply the blade of the copping saw to the notch, and cut off the pipe port cover along the uneven inner surface.
2) After cutting off the pipe port cover, perform filing.
   Remove the burrs along the cut section using a half round needle file.



The figure shows the case of left-bottom piping.

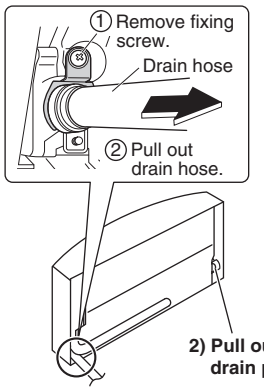
NOTE
- Be careful not to let chips enter the driving section of the arm.
- Be careful not to put pressure on the lower front panel.

3-2. Left-side, left-back, or left-bottom piping

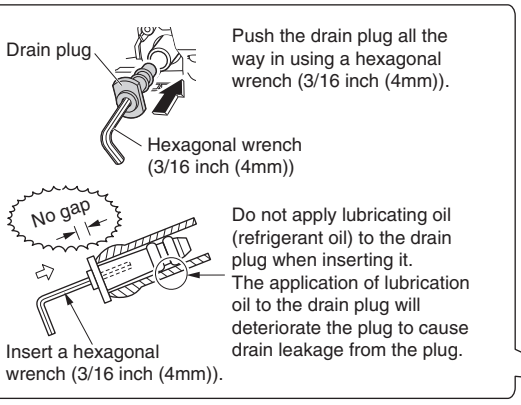
1) Switch around the drain plug and drain hose.

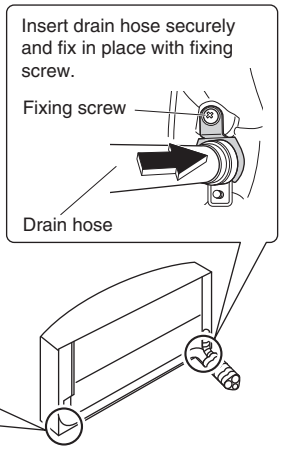
How to switch around the drain plug and drain hose

1) Remove the fixing screw and pull out the drain hose.

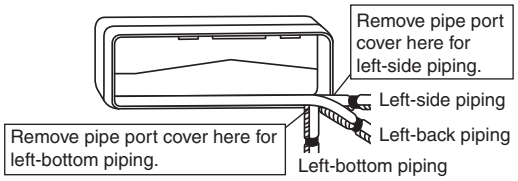


3) Switch around the drain hose and drain plug.





2) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
3) Shape the refrigerant pipes along the pipe path marking on the Ⓐ mounting plate.

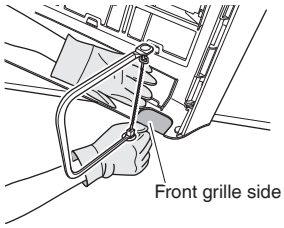


Indoor Unit Installation

How to remove the pipe port cover

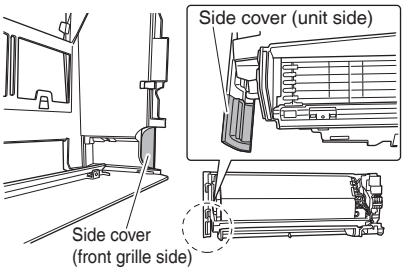
1) Cut off the pipe port cover with a copping saw.
   Apply the blade of the copping saw to the notch, and cut off the pipe port cover along the uneven inner surface.

- **For bottom piping:** On the bottom of the front grille

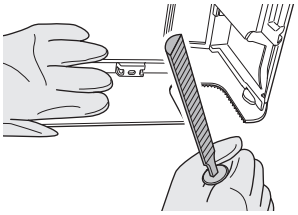


The figure shows the case of left-bottom piping.

- **For left side piping:** On the side cover (front grille side and unit side)

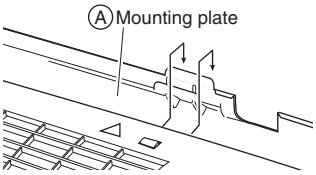


2) After cutting off the pipe port cover, perform filing.
   Remove the burrs along the cut section using a half round needle file.



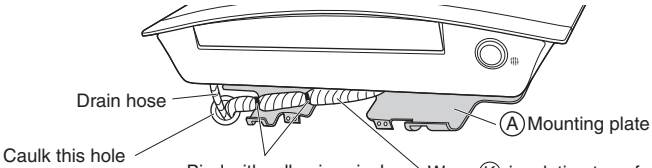
NOTE
- Be careful not to let chips enter the driving section of the arm.
- Be careful not to put pressure on the lower front panel.

4) Pass the drain hose and refrigerant pipes through the wall hole, then position the indoor unit on the Ⓐ mounting plate hooks, using the △ markings at the top of the indoor unit as a guide.

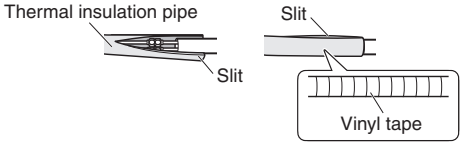


5) Connect the refrigerant pipes.

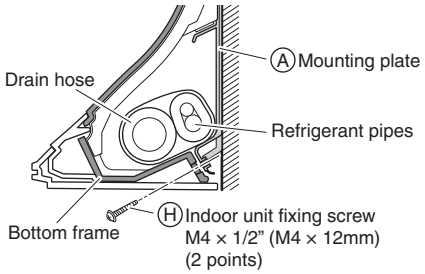
6) In case of pulling the drain hose through the back of the indoor unit, wrap the refrigerant pipes and drain hose together with Ⓚ insulation tape as shown in the figure.



Wrap with vinyl tape so that no gap is left and the slit in the thermal insulation pipe is facing upward.



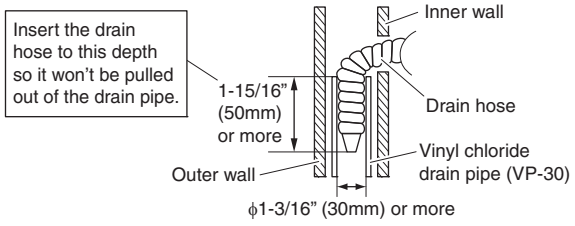
7) Press the bottom edge of the indoor unit with both hands until it is firmly caught by the Ⓐ mounting plate hooks.
   Secure the indoor unit to the Ⓐ mounting plate with the Ⓗ indoor unit fixing screws M4 × 1/2" (M4 × 12mm).



3-3. Wall embedded piping

Follow the instructions given under left-back piping.

1) Insert the drain hose to this depth so it won't be pulled out of the drain pipe.



4. Wiring

Refer to the installation manual for the outdoor unit also.

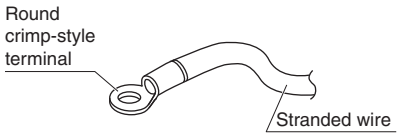
⚠ WARNING

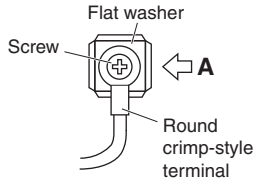
- Do not use tapped wires, extension cords, or starburst connections, as they may cause overheating, electric shock, or fire.
- Do not use locally purchased electrical parts inside the product. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.
- Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.

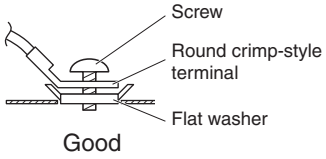
⚠ CAUTION

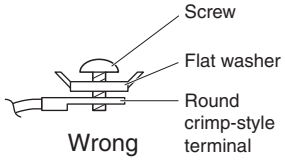
Recommend stranded cable for interunit wiring. Local code always supersedes recommendation.

- For stranded wires, make sure to use the round crimp-style terminal for connection to the power supply terminal block. Place the round crimp-style terminals on the wires up to the covered part and secure in place.



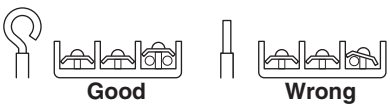






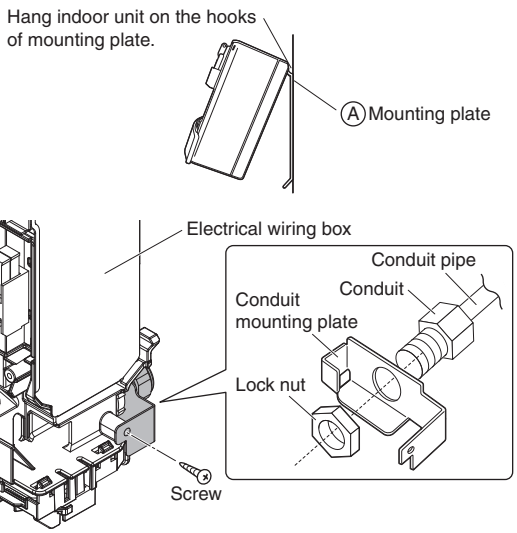
- If solid core wire must be used, be sure to curl the end of the lead. Improper work may cause heat and fire.

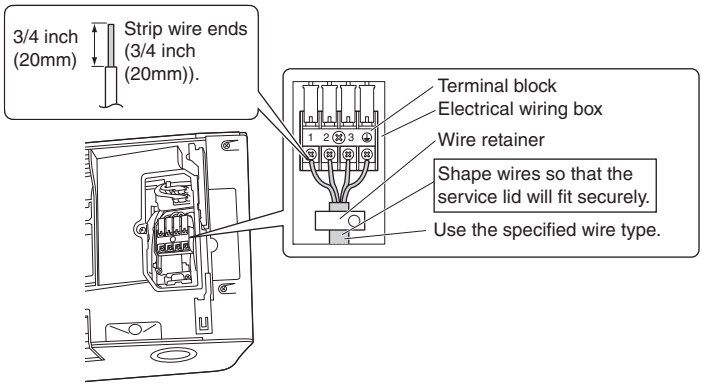
Arrow view **A**

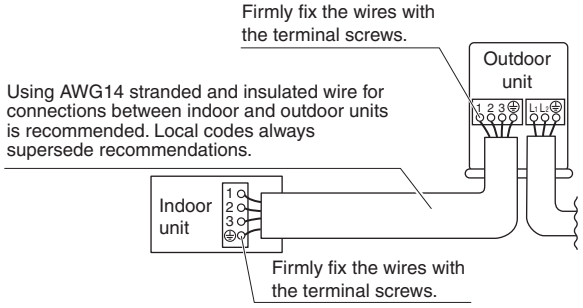


With a multi indoor unit , install as described in the installation manual supplied with the multi outdoor unit.

1) Remove the upper front panel, then remove the service lid. (Refer to the opening method on page 4.)
2) Lift up the unit and place it on the Ⓐ mounting plate hooks.
3) Remove the front grille. (Refer to the removal method on page 11.)
4) Remove the conduit mounting plate and then secure the conduit to the conduit mounting plate with the lock nut, as shown in the illustration.
5) Strip wire ends (3/4 inch (20mm)).
6) Match wire colors with terminal numbers on the indoor and outdoor unit's terminal blocks and firmly secure the wires in the corresponding terminals with the screws.
7) Connect the ground wire to the corresponding terminals.
8) Pull the wires lightly to make sure they are securely connected.







Indoor Unit Installation

9) In case of connecting to an adapter system, run the remote controller cable and attach the S21. (Refer to **"5. When connecting to an HA system"** on page 13.)
10) Attach the conduit mounting plate.
11) Shape the wires so that the service lid fits securely.
12) Attach the front grille. (Refer to removal method on page 11.)
13) Attach the service lid and the upper front panel. (Refer to the opening method on page 4.)
14) Take care to ensure that all wiring between the indoor unit and the outdoor unit has a consistent connection. Any splices can cause communication errors.

5. Drain piping

1) Connect the drain hose, as described on the right.
   - Avoid placing the end of the drain hose in a drainage location that could cause bad odors or corrosive gas to flow backward into the outlet.
   - The drainage water may change color due to bacteria or other organisms. Place in a location where the flow of drainage water will not cause a problem.
   - Minimize the number of bends in the drain hose as much as possible. If bending the drain hose, bend it gently.
2) Remove the air filters and transfer some water to the indoor heat exchanger by pouring water into the drain pan.
3) Make sure that water flows out of the drain hose.
4) If drain hose extension or embedded drain piping is required, use appropriate parts that match the hose front end.

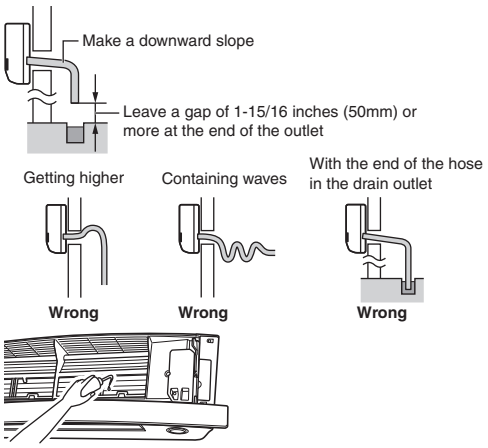
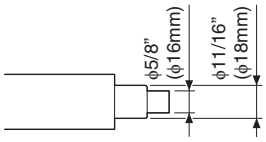
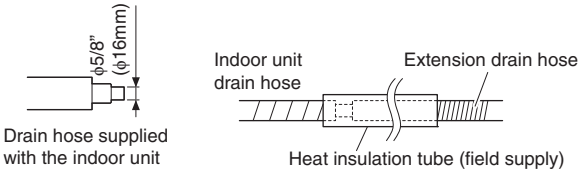


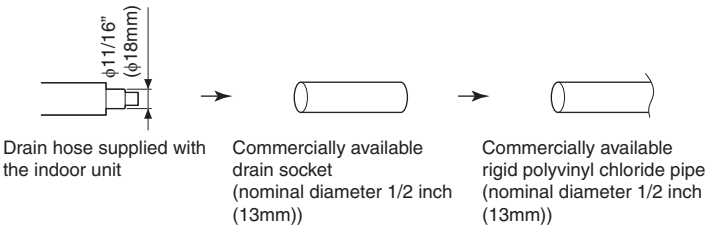
Figure of hose front end



- When drain hose requires extension, obtain an extension hose with an inner diameter of 5/8 inch (16mm). Be sure to thermally insulate the indoor section of the extension hose.



- When connecting a rigid polyvinyl chloride pipe (nominal diameter 1/2 inch (13mm)) directly to the drain hose attached to the indoor unit as with embedded piping work, use any commercially available drain socket (nominal diameter 1/2 inch (13mm)) as a joint.



Refrigerant Piping Work

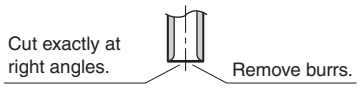
⚠ WARNING

- Do not apply mineral oil on flared part.
- Prevent mineral oil from getting into the system as this would reduce the service life of the units.
- Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
- Never install a dryer to this R410A unit in order to guarantee its service life.
- The drying material may dissolve and damage the system.
- Incomplete flaring may result in refrigerant gas leakage.

With a multi indoor unit , install as described in the installation manual supplied with the multi outdoor unit.

1. Flaring the pipe end

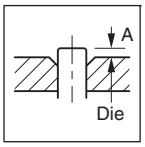
1) Cut the pipe end with a pipe cutter.
2) Remove burrs with the cut surface facing downward, so that the filings do not enter the pipe.



3) Put the flare nut on the pipe.
4) Flare the pipe.
5) Check that the flaring has been done correctly.

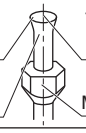
Flaring

Set exactly at the position shown below.



	Flare tool for R32 or R410A	Conventional flare tool	
	Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
A	0-0.020 inch (0-0.5mm)	0.039-0.059 inch (1.0-1.5mm)	0.059-0.079 inch (1.5-2.0mm)

Check



The flare's inner surface must be flaw-free.

The pipe end must be evenly flared in a perfect circle.

When flaring, do not over-tighten and crack.

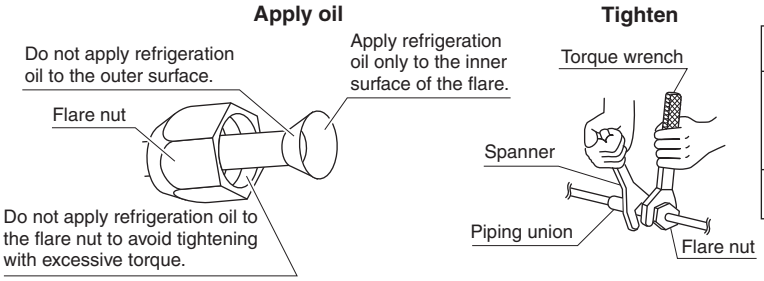
Make sure that the flare nut is fitted.

2. Refrigerant piping

⚠ CAUTION

- Use the flare nut fixed to the main unit. (This is to prevent the flare nut from cracking as a result of deterioration over time.)
- To prevent gas leakage, apply refrigeration oil only to the inner surface of the flare. (Use refrigeration oil for R410A.)
- Use a torque wrench when tightening the flare nuts to prevent damage to the flare nuts and gas leakage.

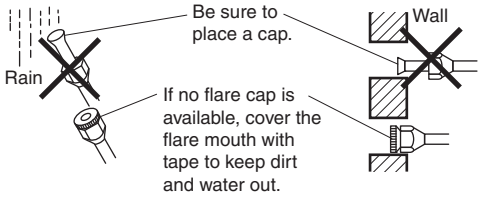
- Align the centers of both flares and tighten the flare nuts 3 or 4 turns by hand, then tighten them fully with a spanner and a torque wrench.



	Piping size	Flare nut tightening torque
Gas side	O.D. 3/8 inch (9.5mm)	24-1/8–29-1/2ft • lbf (32.7-39.9N • m)
	O.D. 1/2 inch (12.7mm)	36-1/2–44-1/2ft • lbf (49.5-60.3N • m)
Liquid side	O.D. 1/4 inch (6.4mm)	10-1/2–12-3/4ft • lbf (14.2-17.2N • m)

2-1. Caution on piping handling

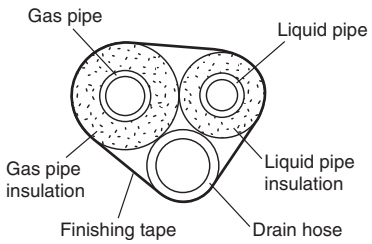
- Protect the open end of the pipe against dust and moisture.
- All pipe bends should be as gentle as possible. Use a pipe bender for bending.



2-2. Selection of copper and heat insulation materials

When using commercial copper pipes and fittings, observe the following:

- Insulation material: Polyethylene foam
  Heat transfer rate: 0.041 to 0.052W/mK (0.024 to 0.030Btu/fth°F (0.035 to 0.045kcal/mh°C))
  Be sure to use insulation that is designed for use with HVAC Systems.
- ACR Copper only.



- Be sure to insulate both the gas and liquid piping and observe the insulation dimensions as below.

	Piping size	Minimum bend radius	Piping thickness	Thermal insulation size	Thermal insulation thickness
Gas side	O.D. 3/8 inch (9.5mm)	1-3/16 inch (30mm) or more	0.031 inch (0.8mm) (C1220T-O)	I.D. 15/32-19/32 inch (12-15mm)	13/32 inch (10mm) Min.
	O.D. 1/2 inch (12.7mm)	1-9/16 inch (40mm) or more		I.D. 9/16-5/8 inch (14-16mm)	
Liquid side	O.D. 1/4 inch (6.4mm)	1-3/16 inch (30mm) or more		I.D. 5/16-13/32 inch (8-10mm)	

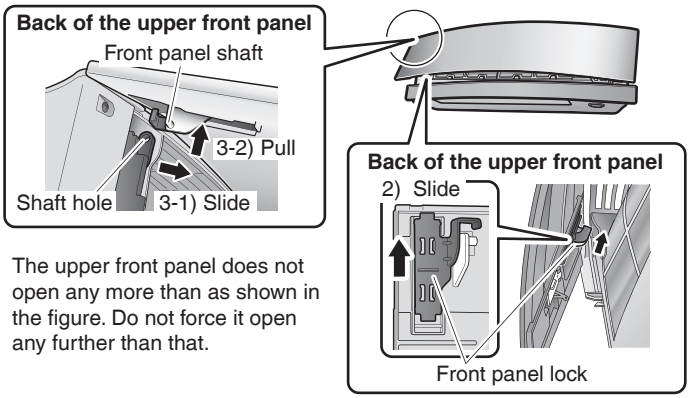
- Use separate thermal insulation pipes for gas and liquid refrigerant pipes.
- Using finishing tape, bundle and wrap the indoor unit piping and drain hose together so that the drain hose is below the other piping.

Installation Tips

1. Removing and installing the upper front panel

• Removal method

1) Open the upper front panel.
2) Slide the front panel locks on the back of the front panel upward to release the locks (left and right sides).
3) Remove the panel shafts on both sides from the shaft holes, and dismount the upper front panel.



The upper front panel does not open any more than as shown in the figure. Do not force it open any further than that.

⚠ CAUTION

Do not attempt to push closed the front panel with the upper and lower front panels overlapping. Internal parts may break. (See **Fig. 5)**
If the front panel must be closed by hand for some reason (remote controller not functioning owing to lack of power supply, etc.), follow the instructions affixed to the indoor unit.

Fig. 1

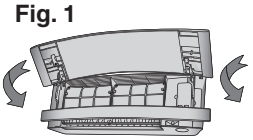


Fig. 2

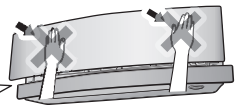
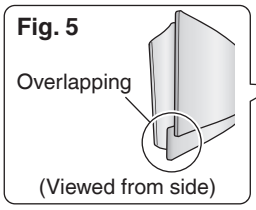


Fig. 5



• Installation method

1) Slide the front panel locks on the back of the front panel upward to release the locks (left and right sides).
2) Insert the panel shafts on both sides of the upper front panel into the shaft holes.
3) Slide the front panel locks on each side downward to lock them.
4) Close the upper front panel slowly. (See **Fig. 1**)
5) Do not push on the panel to close it. (See **Fig. 2**)
6) Turn on the unit using the remote controller. Wait till the upper and lower front panels are completely open. Then, turn off the unit using the remote controller again. (See **Fig. 3**)
7) Once the both panels close completely, gently push the upper front panel to hook it into position. (See **Fig. 4**)

Fig. 3

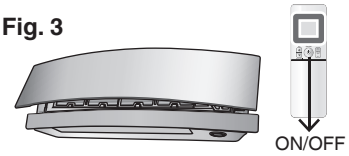
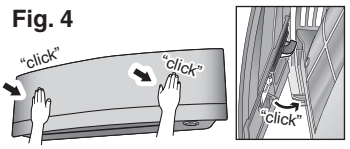


Fig. 4



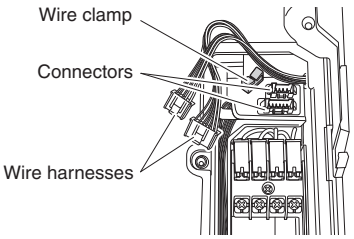
2. Removing and installing the front grille

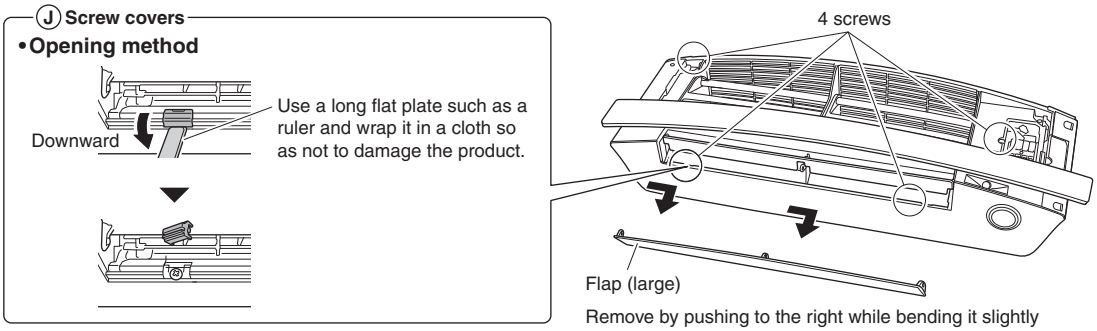
⚠ CAUTION

Be sure to wear protection gloves.

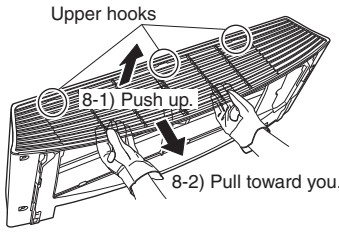
• Removal method

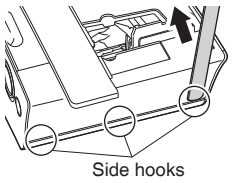
1) Remove the upper front panel and air filters.
2) Remove the service lid. (Refer to the opening method on page 4.)
3) Disconnect the wire harnesses from the wire clamp, and remove the wire harnesses from the connectors.
4) Push the lower front panel up until it stops.
5) Dismount the flap (large).
6) Open the 2 screw covers, and remove 4 screws from the front grille. (The screw covers are not factory-mounted.)





7) Wear protection gloves and insert both hands under the front grille as shown in the figure.
8) Remove the front grille from the 3 upper hooks by pushing up the top side of the front grille, pull the front grille toward you by holding both ends of the front grille, and dismount the front grille.
   • If the grille is hard to remove, insert a long flat plate* through the gap in the side cover as shown in the figure, and turn the plate inwards to disengage the hooks (3 hooks each on the right and left sides) so that you can remove the grille easily.
   * Such as a ruler wrapped in a cloth





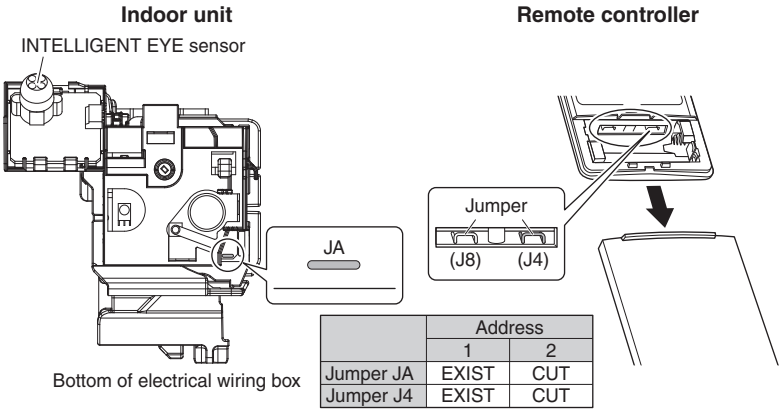
• Installation method

1) Install the front grille and firmly engage the upper hooks (3 locations), right and left sides hooks (each 3 locations).
2) Install 4 screws of the front grille, and close the 2 screw covers.
3) Mount the flap (large).
4) Lower the lower front panel to the original position.
5) Attach the wire harnesses to the 2 connectors and secure the wire harnesses with the wire clamp.
6) Install the air filters and then mount the upper front panel.

3. How to set the different addresses

When 2 indoor units are installed in one room, the 2 wireless remote controllers can be set for different addresses. Change the address setting of one of the two units. When cutting the jumper be careful not to damage any of the surrounding parts.

1) Remove the upper front panel and front grille. (Refer to the removal method on page 11.)
2) Cut the address jumper (JA) on the printed circuit board.
3) Cut the address jumper (J4) in the remote controller.
   • Be careful not to cut jumper (J8).

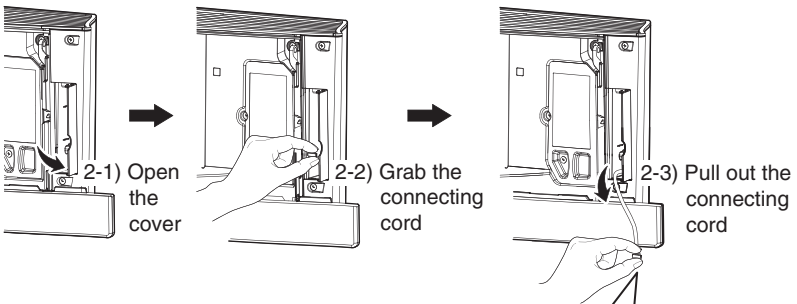


	Address	
	1	2
Jumper JA	EXIST	CUT
Jumper J4	EXIST	CUT

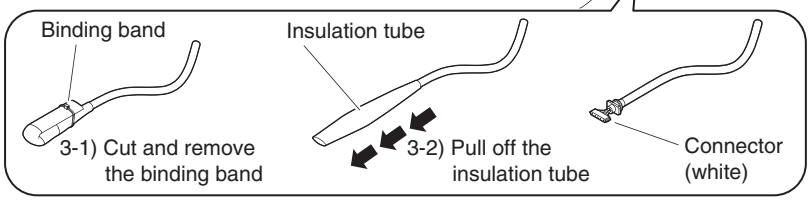
4. When connecting a wireless LAN connecting adapter

• Connection method

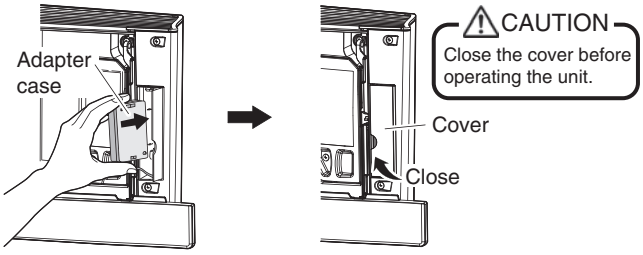
1) Remove the upper front panel.
   (Refer to the removal method on page 11.)
2) Open the cover, grab the connecting cord with your fingers and pull it out.



3) Remove the binding band and pull the insulation tube off the connecting cord.



4) Connect the wireless LAN connecting adapter.
   (For details on connection procedures, refer to the installation manual for the wireless LAN connecting adapter.)
5) Place the adapter case into the indoor unit and close the cover.
6) Install the upper front panel.
   (Refer to the installation method on page 11.)

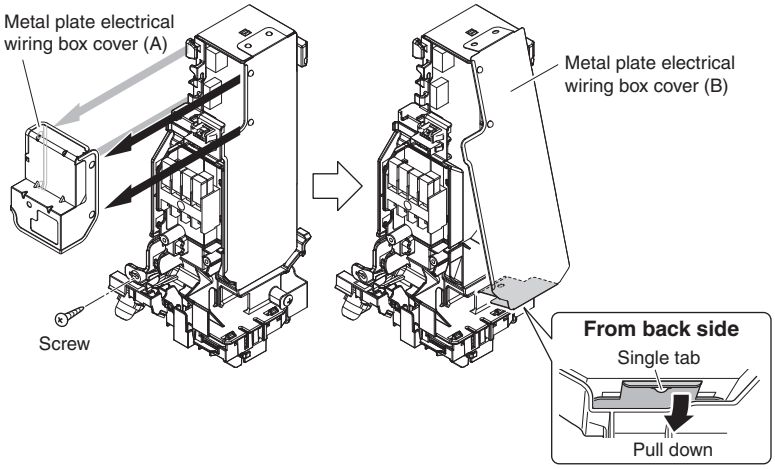


Installation Tips

5. When connecting to an HA system (wired remote controller, central remote controller etc.)

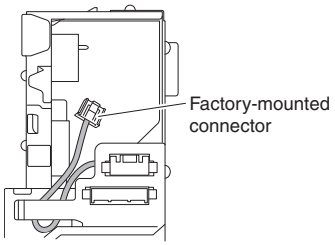
• Removal methods for metal plate electrical wiring box covers

1) Remove the upper front panel and front grille. (Refer to the removal method on page 11.)
2) Remove the electrical wiring box. (1 screw)
3) Remove the 4 tabs and dismount the metal plate electrical wiring box cover (A).
4) Pull down the hook on the metal plate electrical wiring box cover (B), and remove a single tab.
5) Remove the 2 tabs on the top part and dismount the metal plate electrical wiring box cover (B).

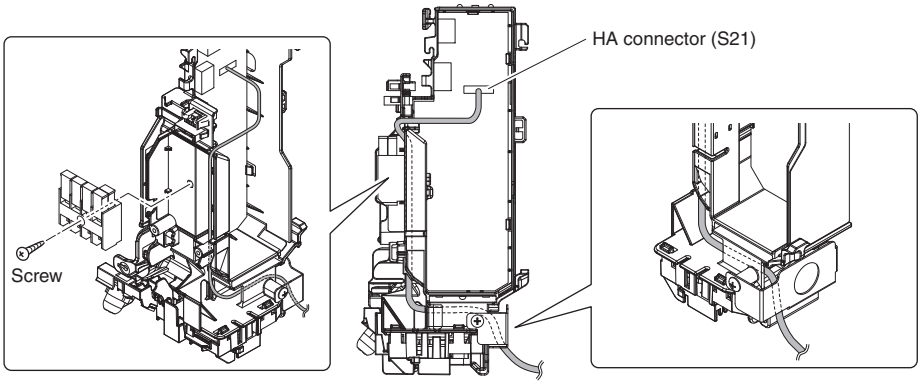


• Attachment methods of connection cord

1) Remove the factory-mounted connector from S21.
2) Tie the harnesses in a bundle as shown in the figure so that the removed connector does not interfere with the printed circuit board.

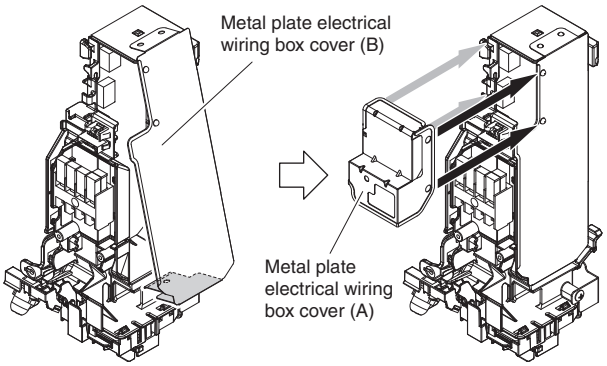


3) Attach the connection cord to the S21 connector and pull the harness out through the notched part in the figure.



• Attachment methods for metal plate electrical wiring box covers

1) Hook the top part of the metal plate electrical wiring box cover (B) on the 2 tabs.
2) Press in the hook on the bottom to catch a single tab, and mount the metal plate electrical wiring box cover (B).
3) Insert the connector into the hole, and hook and mount the metal plate electrical wiring box cover (A) onto the 4 tabs.
4) Install the electrical wiring box. (1 screw)
5) Install the upper front panel and front grille. (Refer to the installation method on page 11.)



Trial Operation and Testing

1. Trial operation and testing

- Trial operation should be carried out in either COOL or HEAT operation.

1-1. Measure the supply voltage and make sure that it is within the specified range.

1-2. In COOL operation, select the lowest programmable temperature; in HEAT operation, select the highest programmable temperature.

1-3. Carry out the trial operation following the instructions in the operation manual to ensure that all functions and parts, such as the movement of the louvers, are working properly.

- To protect the air conditioner, restart operation is disabled for 3 minutes after the system has been turned off.

1-4. After trial operation is complete, set the temperature to a normal level (78°F to 82°F (26°C to 28°C) in COOL operation, 68°F to 75°F (20°C to 24°C) in HEAT operation).

- When operating the air conditioner in COOL operation in winter, or HEAT operation in summer, set it to the trial operation mode using the following method.

1) Press Temp, Temp and Mode at the same time.

2) Press Temp, select "7", and press Mode for confirmation.

3) Press On/Off to turn on the system.

- Trial operation will stop automatically after about 30 minutes.
  To stop the operation, press On/Off.
- Some of the functions cannot be used in the trial operation mode.



- The air conditioner draws a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
- If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

2. Test items

Test items	Symptom	Check
Indoor and outdoor units are installed securely.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly grounded.	Electrical leakage	
Only specified wires are used for all wiring, and all wires are connected correctly.	No operation or burn damage	
Indoor or outdoor unit's air inlet or air outlet are unobstructed.	Incomplete cooling/heating function	
Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	No operation	
☼ will be displayed when the MODE button is pressed.	No heating	
Pipes and wires are connected to the corresponding terminal blocks/ connection ports for the connected unit.	No cooling/heating	

DAIKIN NORTH AMERICA LLC
19001 Kermier Road
Houston, TX 77484
https://www.northamerica-daikin.com/

The two-dimensional bar code
is a manufacturing code.

3P674703-1 M21B356 (2203) HT