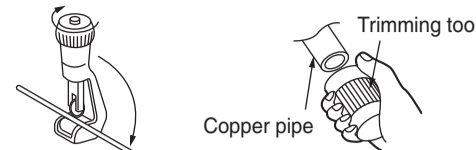




**1. Pipe Cutting and Flaring**

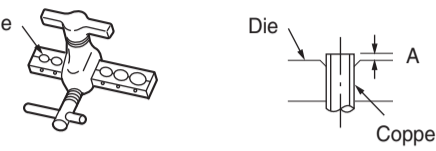
- Use a pipe cutter to cut the pipe and remove burr.



**CAUTION**

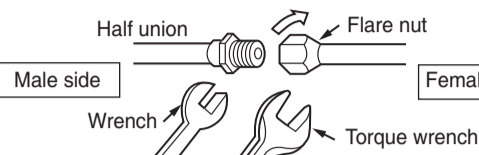
- Remove burr**  
If burr is not removed, it may cause leakage.
- Point the side to be trimmed downwards during trimming to prevent copper chips from entering the pipe.**

- Before flaring, please put on the flare nut.



**2. Pipe Connection**

- Remove the flare nut from the pipe of the indoor unit by removing the flare nut (female side) with a spanner while holding down the half union (male side) with a spanner.
- Do not crush the pipe while bending it.
- Apply refrigerant oil on the connection part. After carrying out the center alignment and manual tightening of the flare nut, tighten the flare nut securely with a torque wrench (spanner).



\* Tightening torque must be as shown in the table below.

| Outer Diameter (φ)  | Rigid Flaring Tool  |              | Torque N·m (kgf·cm) |
|---------------------|---------------------|--------------|---------------------|
|                     | A (mm)              | For R22 tool |                     |
| Small diameter side | 6.35 (1/4")         |              | 13.7-15.6 (140-190) |
| Large diameter side | 12.7 (1/2")         |              | 44.1-53.9 (450-550) |
| Valve head          | Small diameter side |              | 19.6-24.5 (200-250) |
|                     | Large diameter side |              | 29.4-34.3 (300-350) |
| Valve core cap      | Small diameter side |              | 12.3-15.7 (125-160) |
|                     | Large diameter side |              |                     |

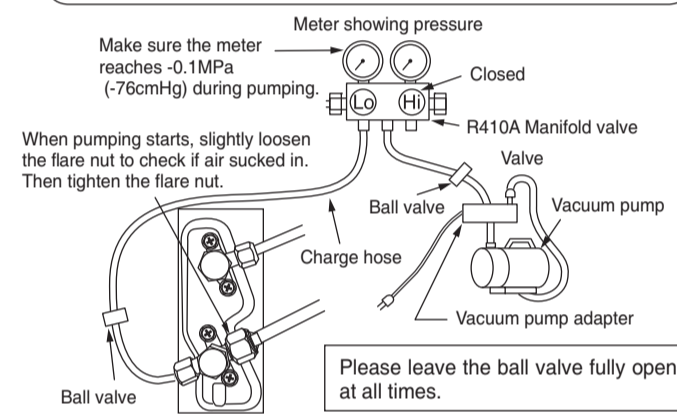
**CAUTION**

- When removing flare nut of the indoor unit, first remove the nut of small diameter side. Otherwise the nut of big diameter side will fly out.
- Prevent water from entering into the piping when connecting.
- Be sure to tighten the flare nut to the specified torque with a torque wrench.  
If the flare nut is over-tightened, it may spill after sometime and may cause refrigerant leak.
- When using a control valve, make sure that the packing is not deteriorated and avoid excessive tightening of the handle. Otherwise, gas may leak from the service valve.

**3. Remove of Air from the Pipe and Gas Leakage Inspection**

From the viewpoint of global environment protection, air purge type should be vacuum pump method.

- Fully tighten the "H" shuttle of the manifold valve and completely unscrew the "Lo" shuttle. Run the vacuum pump. (Adapter is switched on)
- After pumping for about 10-15 minutes, completely loosen the "Lo" shuttle and switch off the vacuum pump. (Adapter is switched off)



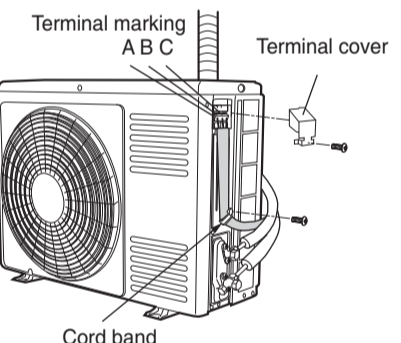
- Remove the valve head cap of the service valve.
- Remove the cap of valve core and connect the charge hose.
- Connect the vacuum pump adapter to the vacuum pump and connect the charge hose to the adapter.
- Loosen the spindle of the service valve with small diameter by 1/4 turn and tighten the spindle immediately after 5 to 6 seconds.
- Remove the charging hose from the service valve.
- Unscrew the spindle of both the service valves in anticlockwise direction to allow the flow of refrigerant (unscrew halfway).
- Tighten the cap of valve head. Check and make sure that there is no gas leakage.

**Wiring of the Outdoor Unit**

Please remove the side cover and terminal cover for wiring connection.

**WARNING**

- The connecting cord must be fix with cord band. Otherwise rain water may enter and cause short circuit. Besides, an external force may apply to the connection part of the connecting cord and could result in heat and fire.
- The terminal cover and side cover must be installed after work is done.



**CAUTION**

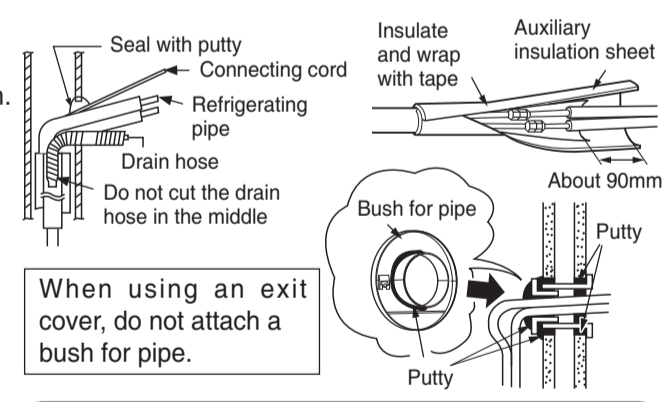
- Outdoor supply cords shall not be lighter than polychloroprene sheathed flexible cord with code designation 60245 IEC 57.

**IMPORTANT**

|               |                     |
|---------------|---------------------|
| Fuse Capacity | 25A time-delay fuse |
|---------------|---------------------|

**1. Heat Insulation and Finishing of Piping**

- Cover the pipe connection with the auxiliary insulation sheet, wrap the tape without any gap.
- If there is gap or over-tightened, it may cause condensation.
- Please wrap the pipe and power cord together with vinyl tape as shown in the figure of the installation of indoor and outdoor units on page 2.
- To enhance the heat insulation and to prevent water condensation, please cover the outdoor part of the drain hose and pipe with insulation sheet.
- When using an exit cover, do not attach a bush for pipe.
- When an exit cover is not used, seal the gap of the hole on the wall and pipe completely with putty. In the case of embedded piping, seal the gap of the pipe completely with putty. Incomplete sealing could cause entering of high humidity air into the wall or indoor unit, which could result in dripping of dew. It could also cause smell or odor present outdoor and inside the wall spreading into the room.



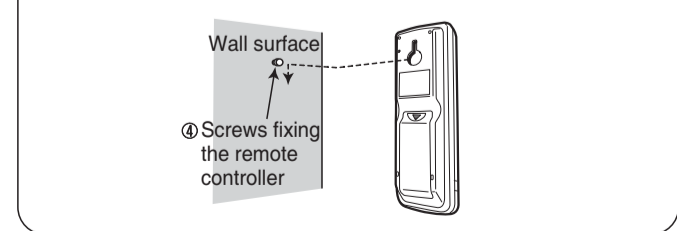
**CAUTION**

- Completely seal any gap with putty. High humidity air inside the wall or the outdoor may go in to the room and could result in dripping of dew. It could also cause smell or odor present outdoor and inside the wall spreading into the room.

**2. Affixing the Remote Controller and Installing the Anti-mold Wasabi Cassette**

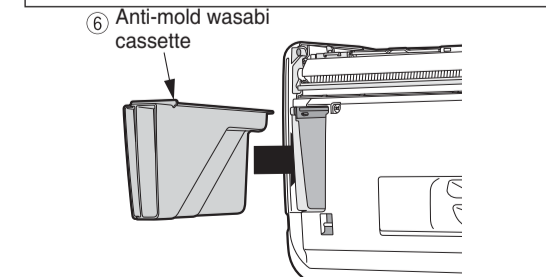
- The remote controller may be affixed to a wall or pillar with the remote controller mounting screw.
- When operating the air conditioning with the remote controller attached, please make sure that the signal is received by the air conditioning. Furthermore, fluorescent lighting may affect the reception of the signal, therefore, please make sure by turning on the fluorescent lighting even during the day.
- Lighting fixtures with electronic starters may shorten the reception distance and may even interfere with the signal being received.

**Installation methods**



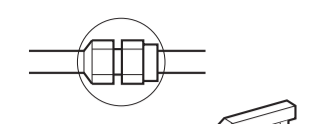
- Install the anti-mold wasabi cassette. (Refer to page 8 of the Operation Manual)

Noise may occur if the anti-mold wasabi cassette is not installed properly.



**Gas Leakage Inspection**

Please use gas leakage detector to check if leakage occurs at connection of Flare nut as shown on the right.



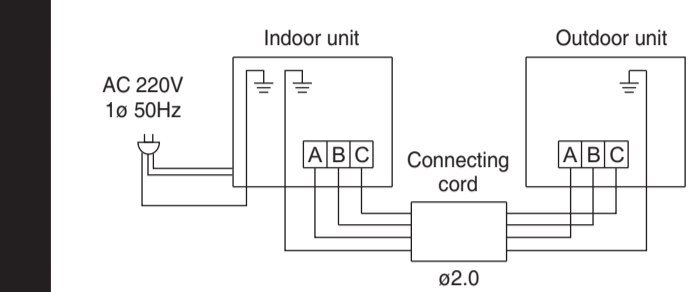
If gas leakage occurs, further tighten the connection to stop leakage. (Be sure to use R410A detector.)

**Works to be done when transferring or removing air conditioner**

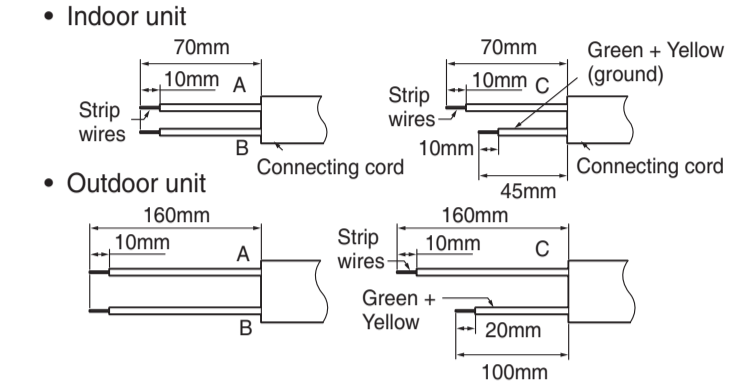
From the viewpoint of global environment protection, refrigerant should be recovered (pumped down) when the air conditioner is transferred or removed.

- Perform force-cooling operation (refer to "Force-cooling operation" on page 12) for about 5 minutes as a preliminary operation.
- Tighten the spindle of the service valve at small diameter side in clockwise direction.
- Continue the force-cooling operation for another 1-2 minutes, and then tighten the spindle of the service valve at large diameter side in clockwise direction.
- Stop the force-cooling operation.

**Procedures of Wiring**



**Detail of Cutting the Connecting Cord**

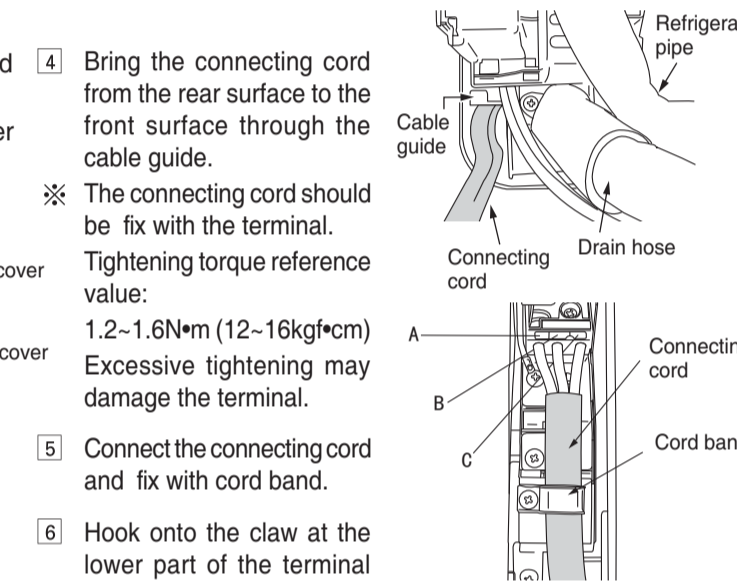


**WARNING**

- If the supply cord is damaged, it must be replaced by a special cord (Maker's service parts) available from the manufacturer or its service agent.
- The naked part of the wire core should be 10mm fix it to the terminal tightly. Then try to pull the individual wire to check if the contact is tight. Improper insertion may burn the terminal.
- Be sure to use only wire specified for the use of air-conditioner.
- Be sure to use only power cables approved from the authorities in your country. For example in Germany: Cable type: NYM 3x2.5mm<sup>2</sup>. (Fuse = 16A time delay)
- Please refer to the manual for wire connection, the wiring technique should meet the standard of the electrical installation.
- Leave some space in the connecting cord for maintenance purpose and be sure to secure it with the cord band.
- Secure the connecting cord along the coated part of the wire using the cord band. Do not exert pressure on the wire as this may cause overheating or fire.
- There is a AC voltage of 220V between the A and B terminals. Therefore, before servicing, be sure to remove the plug from the AC outlet.

**Wiring of the Indoor Unit**

- Remove the front panel. (Refer to "Removing and Attaching the Front Panel" on page 13)
- Remove the terminal cover and screw, hold the upper part when removing.

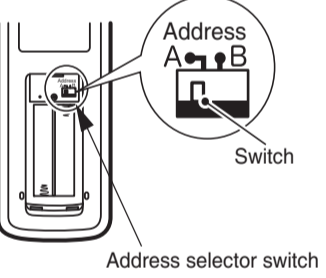


- Bring the connecting cord from the rear surface to the front surface through the cable guide.
- The connecting cord should be fix with the terminal. Tightening torque reference value: 1.2-1.6N·m (12-16kgf·cm) Excessive tightening may damage the terminal.
- Connect the connecting cord and fix with cord band.
- Hook onto the claw at the lower part of the terminal cover and fix with screw.

**About Address Selector Switch**

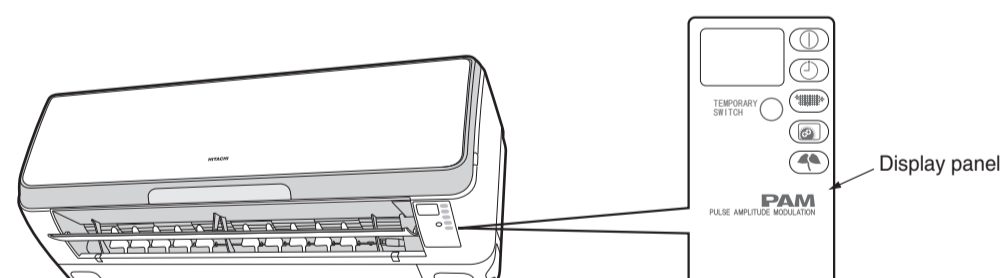
This is utilized to avoid the interference of remote controller signals when two indoor units are installed in the same room. The Address Selector Switch is on the outside of the remote controller battery cover. (Factory setting is set to "A")

- Setting the address (to avoid interference)  
Only one of the two indoor units has to be set (turn off the power to the other indoor unit).  
1. Place a battery in the remote controller and press the reset switch. (Refer to page 11 of the Operation Manual)
- While pointing the remote controller transmitter/receiver at the indoor unit, move the switch of the Address Selector Switch to 'B'.  
3. The channel is set when the unit beeps, confirming it has received the signal.
- After changing the address, please confirm the unit's operation with the remote controller. If the unit does not operate, return the switch to 'A' and set the switch again.



**3. Remove the Protection Sheet**

- Remove the protection sheet on the display panel.



**4. Power Source and Operation Test**

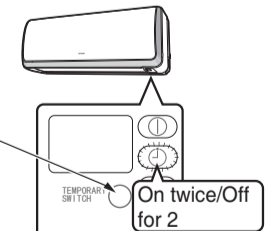
**Power source**

**WARNING**

- Never modify or extend the power cord.
- Keep additional length for the power cord and do not render the plug under external force as this may cause poor contact.
- Do not fix the power cord with U-shape nail.
- The power cable easily generates heat. Do not bring the cable together with a wire or vinyl tie.

**Force-cooling operation**

- When the temporary switch of the indoor unit is pressed for more than 5 seconds, the force-cooling operation starts. Use this mode when performing the failure diagnosis or collecting refrigerant into the outdoor unit.
- The Timer lamp flashes when force-cooling is in operation.
- Press the temporary switch again or use the remote controller to stop the force-cooling operation once this operation is completed.



Temporary switch (Force-cooling operation starts when the switch is pressed for more than 5 seconds. Press the switch again and use the remote controller to stop the operation.)

**CAUTION**

- Use a new power outlet. Old power outlet may cause insufficient electrical contact, which could result in unforeseen accident.
- Connect and disconnect the power plug a few times to ensure smooth plug-in before completely insert the power plug into the power outlet.

**Operation test**

- Please ensure that the air conditioner is in normal operating condition during the operation test.
- Explain to your customer about the proper operation procedures as described in the operation manual.
- If the indoor unit won't operate, check the cable for correct connection.

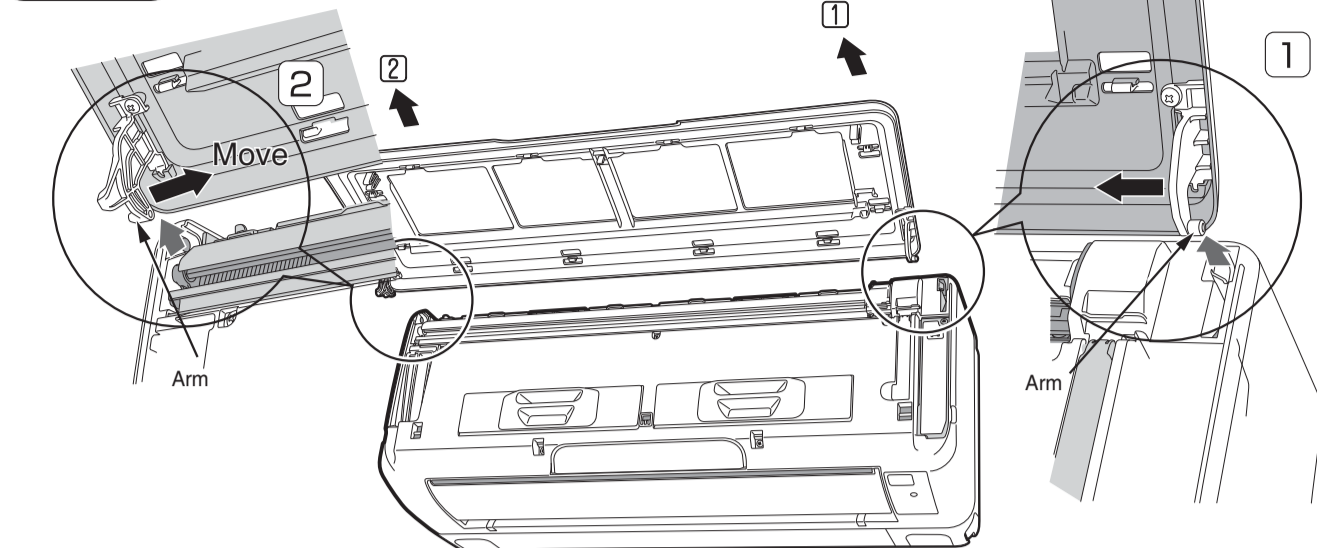
**CAUTION**

- Do not operate the unit for more than 5 minutes while the spindle of the service valve is closed.

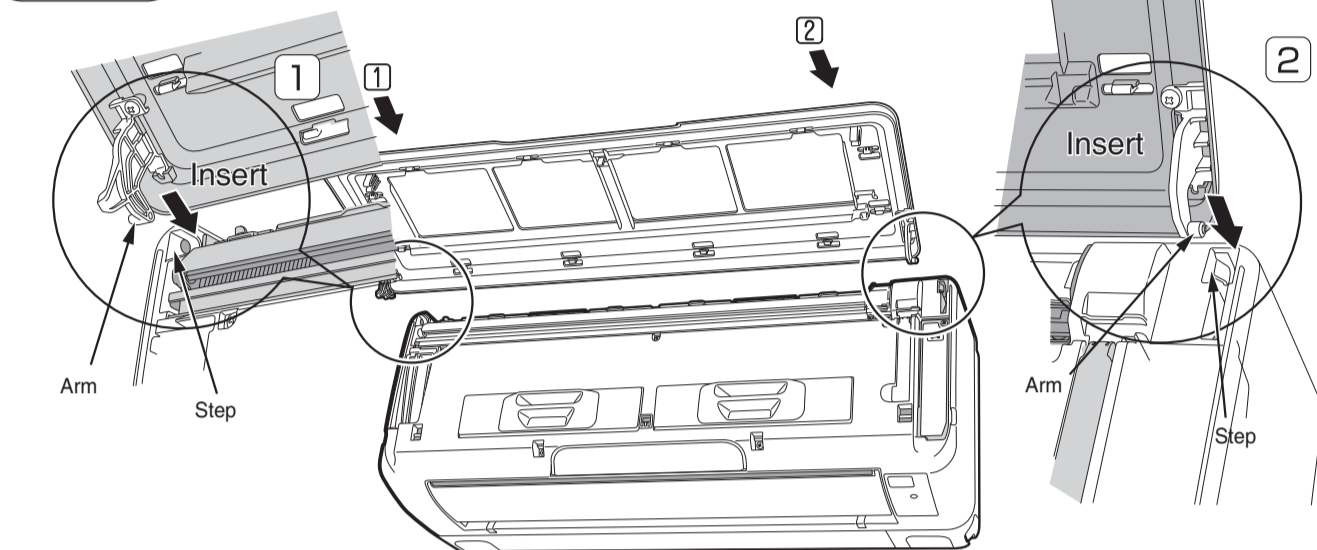
**Removing and Attaching the Front Panel**

- Be sure to hold the front panel with both hands to detach and attach it. Please refer to the operation manual on how to open and close the front panel.

**Removing**



**Attaching**



- Push the end of the right-side arm outward to release the tab.
- Move the left-side arm outward to release the left tab, and then pull the panel towards you.

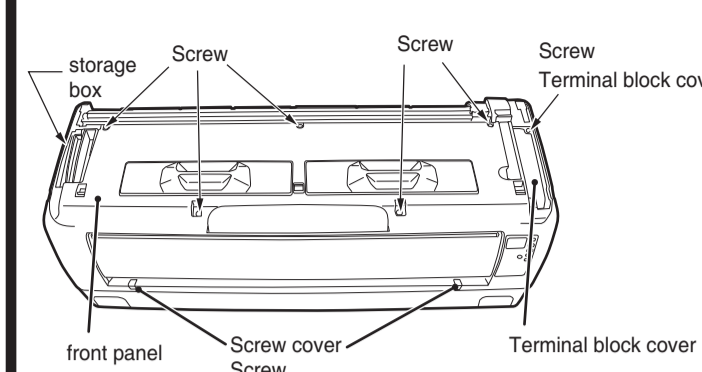
- Insert the shaft of the left arm along the step on the unit into the hole.
- Securely insert the shaft of the right arm along the step on the unit into the hole.
- Make sure that the front panel is securely attached, and then close the front panel.

**CAUTION**

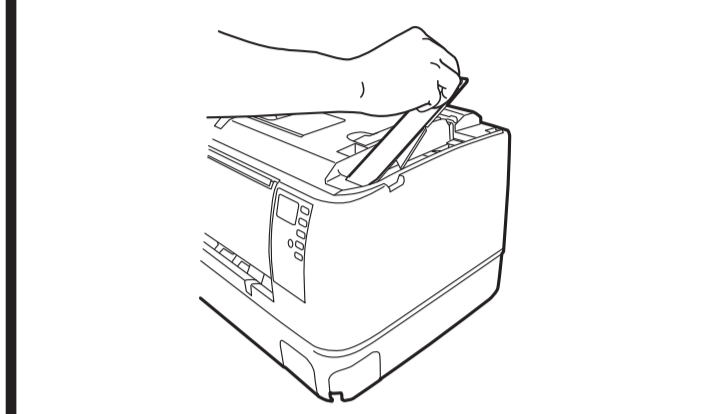
- When being installed or removed, the panel is likely to slide off.
- When lifting to open the panel, do not apply too much force. Otherwise, the panel may come off or malfunction may be caused.

**How to remove the panel frame**

- Remove the front panel and the storage box.
- Unscrew screws of the terminal block cover, and remove the terminal block.
- Remove the screw cover below the panel frame, and unscrew the 7 screws from the panel frame.

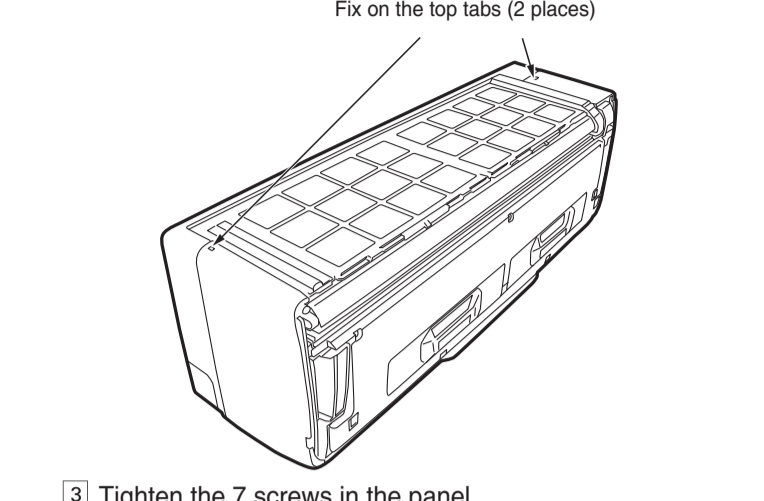


- Insert the screw driver into the hole on the right upper part of the panel frame, and loosen the jaw.
- Hold the panel frame and pull it along the direction indicated by the arrow to remove it.

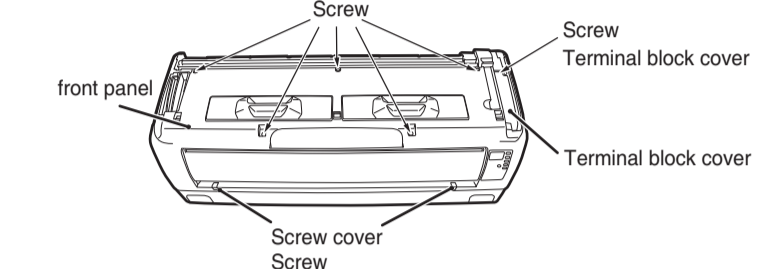


**Attaching the Front Cover**

- Make sure that the dew receiving pan and the cleaning unit are securely attached.
- After attaching the left and right sides of the front cover onto the unit, ensure that the top tabs (2 places) have been fixed on.



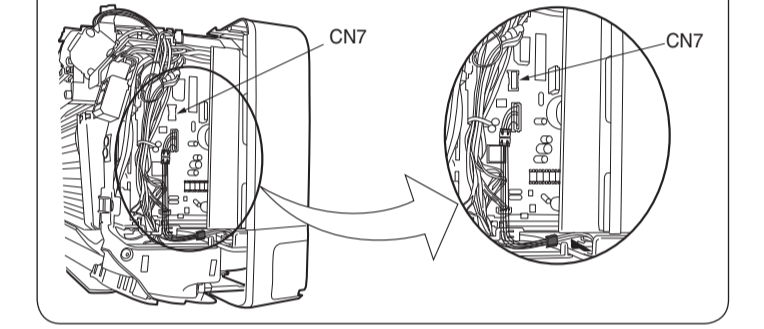
- Tighten the 7 screws in the panel.
- Install the terminal block cover, and tighten the screws.
- Install the screw cover.



**H-LINK**

[For details on part numbers of optional accessories, refer to the catalogue.] To connect to H-LINK, purchase a RAC adaptor separately.

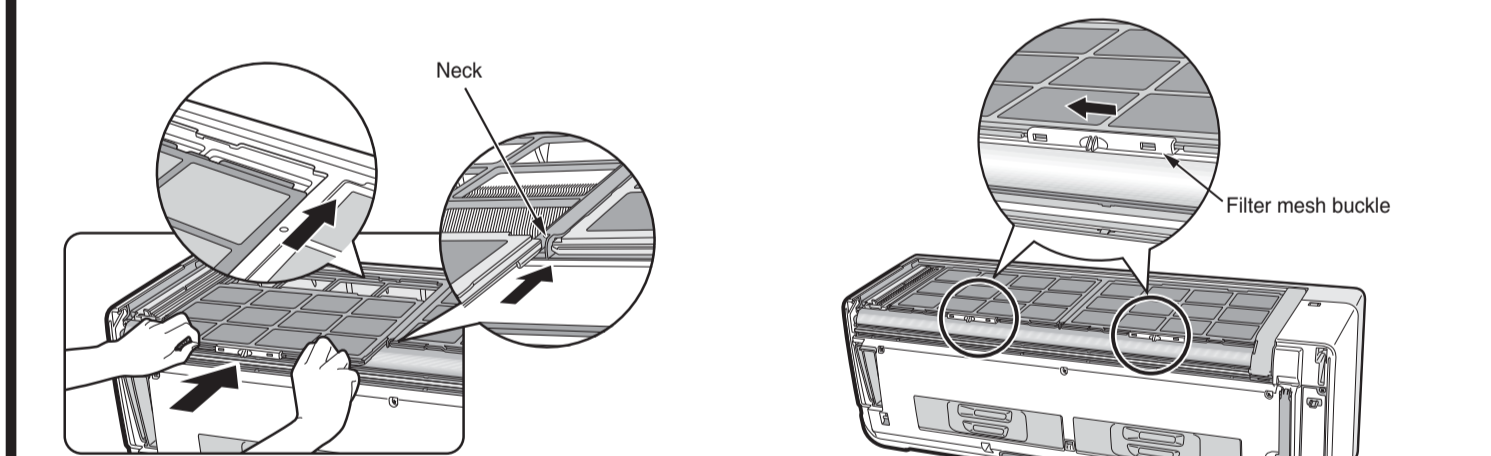
- When connecting wires, be sure to open the electric box cover.
- Connect the socket of RAC adaptor to CN7.
- Reattach the electric box cover.
- For details on the RAC adaptor, refer to its user manual.
- Please take care when connecting the optional adaptor to prevent the edge of the circuit board from cutting the lead wire.
- Remove and install the front cover by referring to this Instruction Manual.



**How to check Micro Mesh Stainless Filter installation**

- Remove the front panel and check if the filter locks (2 pcs) are tripped or slant.
- If the filters are not inserted properly, refer to following "Installing the Micro Mesh Stainless Filters".
- Please perform "Filter cleaning operation check" again after reinstalled the filters.

**Installing the Micro Mesh Stainless Filters**



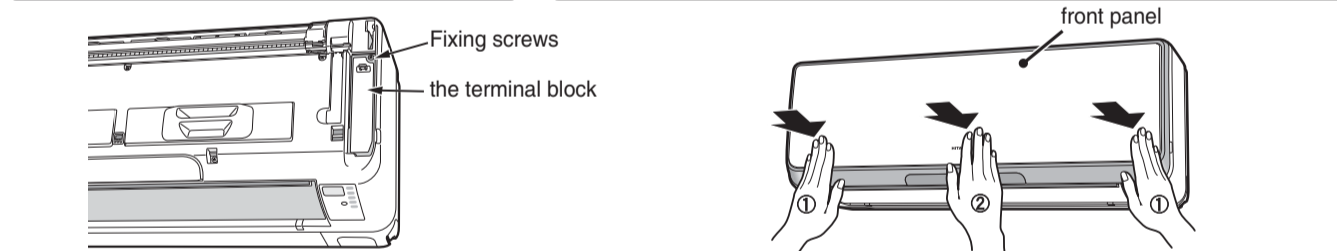
- Keep the filter mesh facing up, and align the filter with the top face of the indoor unit, and then slide and push it in. (The shape of the left and right filters are the same.)
- Slide the buckles of the filter mesh leftwards to lock the filter mesh. (Each in both sides)

**CAUTION**

- Before trial running of the air conditioner, be sure to check the following steps 1 and 2, and then operate it in the cooling-heating room.

**1. Verifying installation of the terminal block and the front panel**

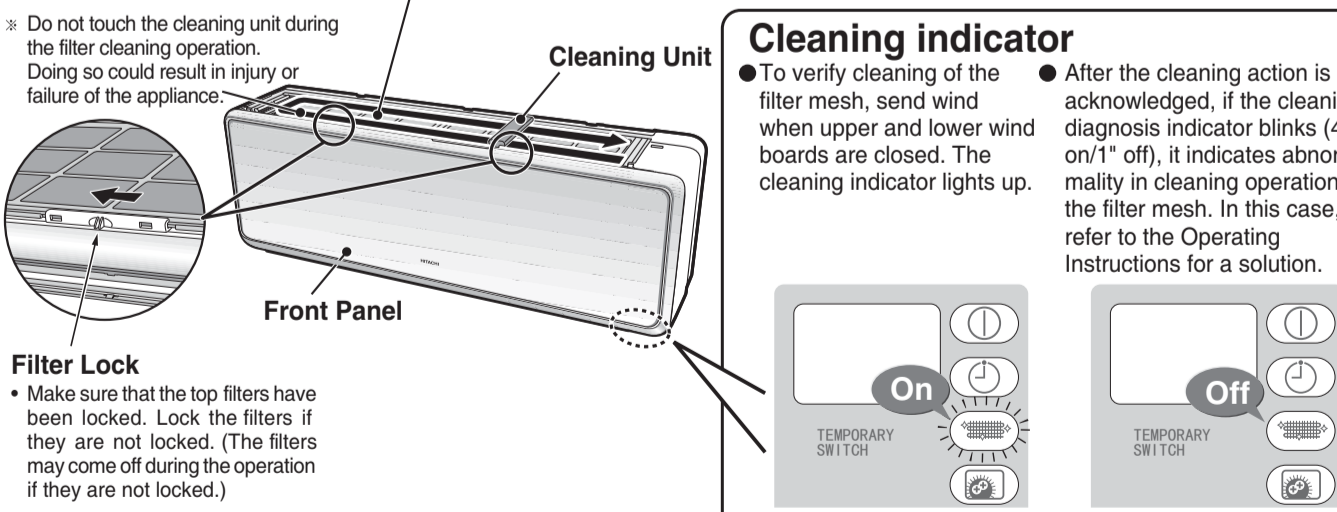
- Check whether the terminal block cover has been installed.
- To close the front panel, press its right and left sides first and then the center until it clicks into place.



**2. Verifying cleaning of the filter mesh**

- Before turning on the power of the air conditioner, make sure that the filters (2 pieces at the top and 2 pieces in front) have been installed properly and locked.
- When the power of the air conditioner turns on, the "Filter Cleaning Operation" starts automatically. The "Clean" indicator is lit during the filter cleaning operation.

Unlike the conventional type of air conditioner, this air conditioner has no grille at its top surface. It is because this air conditioner is equipped with the cleaning unit, and to prevent the top surface from getting dirty easily.

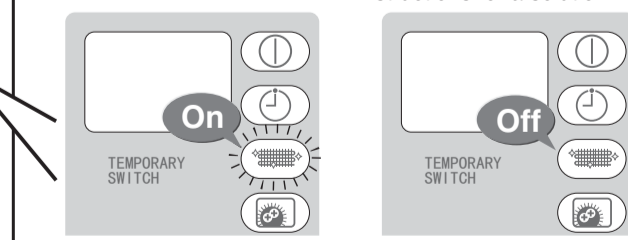


**Filter Lock**

Make sure that the top filters have been locked. Lock the filters if they are not locked. (The filters may come off during the operation if they are not locked.)

**Cleaning indicator**

- To verify cleaning of the filter mesh, send wind when upper and lower wind boards are closed. The cleaning indicator lights up.
- After the cleaning action is acknowledged, if the cleaning diagnosis indicator blinks (4" on/1" off), it indicates abnormality in cleaning operation of the filter mesh. In this case, refer to the Operating Instructions for a solution.



- Filter cleaning operation check will take approximately 5 minutes for the cleaning unit to make one cycle of back and forth movement. Make sure that the cleaning unit is actually working by a visual inspection from the top of the indoor unit.
- Close the front panel properly.
- If the "ON/OFF" button on the remote control is pressed during the operation check, the operation check is stopped before its completion. Wait until the operation check is completed without pressing any button on the remote controller.
- If the filters are not installed properly, "Filter Cleaning Operation" is found abnormal and the "Clean" indicator blinks.
- The filters may come off during operation if they are not installed properly.
- If the "Clean" indicator blinks during the "Filter Cleaning Operation" means that the operation is stopped before its completion due to an abnormal condition. In this case, refer to "Check the Operation of the Filter Cleaning Unit" and "Troubleshooting" of the operation manual and take appropriate actions.

**Settings of [Dynamic Wind Deflection]**

- When the indoor unit is installed in a corner, please set it by following the procedure below to achieve the maximum effect:
  - Left-corner installation:** For walls less than 1m from the indoor unit, hold the remote controller for more than 5 seconds.
  - Right-corner installation:** For walls less than 1m from the indoor unit, hold the remote controller for more than 5 seconds.
  - Central installation:** For walls more than 1m from the indoor unit, hold the remote controller for more than 5 seconds. (This is the factory default setting.)
- The setting completes when the machine beeps.
- When the air guide mode is set to evasion, the air is sent to all areas except the left side.
- When the air guide mode is set to evasion, the air is sent to all areas except the right side.
- The setting completes when the machine beeps.

