

# SPLIT TYPE AIR CONDITIONER Duct Type INSTALLATION INSTRUCTION SHEET

(PART NO. 9361795037)

For authorized service personnel only.

<b>WARNING!</b>	This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user.
<b>CAUTION!</b>	This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property.

**WARNING**

- For the air conditioner to operate satisfactorily, install it as outlined in this installation instruction sheet.
- Connect the indoor unit and outdoor unit with the room air conditioner piping and cords available from our standard parts. This installation instruction sheet describes the correct connections using the installation set available from our standard parts.
- Installation work must be performed in accordance with national wiring standards by authorized personnel only.
- If refrigerant leaks while work is being carried out, ventilate the area. If the refrigerant comes in contact with a flame, it produces a toxic gas.
- Do not turn on the power until all installation work is complete.

- Be careful not to scratch the air conditioner when handling it.
- After installation, explain correct operation to the customer, using the operating manual.
- Let the customer keep this installation instruction sheet because it is used when the air conditioner is serviced or moved.
- The maximum length of the piping is shown in Table 1. If the units are further apart than this, correct operation cannot be guaranteed.

## STANDARD PARTS

The following installation parts are furnished. Use them as required.

### INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application
Installation template	1	For positioning the indoor unit
Hanger	4	For suspending the indoor unit from ceiling
Special nut A (large flange)	4	For suspending the indoor unit from ceiling
Special nut B (small flange)	4	For suspending the indoor unit from ceiling
Coupler heat insulation (large)	2	For indoor side pipe joint (large pipe)
Coupler heat insulation (small)	1	For indoor side pipe joint (small pipe)
Nylon fastener	1	For fixing the drain hose
Remote controller	1	For installing the remote controller cord
Remote controller cord clamp	10	For installing the remote controller cord
Tapping screw (flush heads)	10	For installing the remote controller cord clamp
Auxiliary pipe assembly	1	For wiring conduit (gas side) connection
Drain hose insulation	1	Insulates the drain hose and vinyl hose connection

### OUTDOOR UNIT ACCESSORIES

Hexagon wrench	1	For opening the refrigerant valve on the outdoor unit
Cable clip	2	For power supply cord binding
Tapping screw (painted)	1	For fixing the valve cover
Drain pipe	1	For outdoor unit drain piping work [Heat & Cool (Reverse cycle) model only]
Drain cap	2	

## SELECTING THE MOUNTING POSITION

**WARNING**

Install at a place that can withstand the weight of the indoor and outdoor units and install positively so that the units will not topple or fall.

## CONNECTION PIPE REQUIREMENT

**CAUTION**

The maximum lengths of this product are shown in table 1. If the units are further apart than this, correct operation can not be guaranteed.

Diameter		Maximum length		Maximum height (between indoor and outdoor)
Small	Large	Cooling	Reverse cycle	
9.53 mm (3/8")	15.88 mm (5/8")	30 m (99 ft)	25 m (82 ft)	15 m (50 ft)

- Use 0.7 mm to 1.2 mm thick pipe.
- Use pipe with water-resistant heat insulation.
- Use pipe that can withstand a pressure of 3,040 kPa.

## ELECTRICAL REQUIREMENT

Electric wire size and fuse/breaker capacity:

Power supply cord (mm <sup>2</sup> )	MAX	4.0
	MIN	3.5
Connection cord (mm <sup>2</sup> )	MAX	2.5
	MIN	1.0
Fuse/Breaker capacity (A)		30

- Install the disconnect device with a contact gap of at least 3 mm nearby the units. (Both indoor unit and outdoor unit)

## INSTALLATION PROCEDURE

Install the air conditioner as follows:

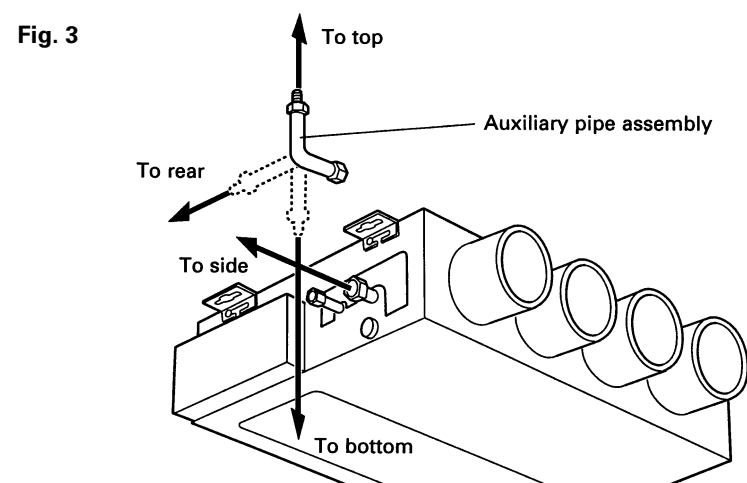
# 1 INDOOR UNIT INSTALLATION

**WARNING**

- Install the air conditioner in a location which can withstand a load of at least five times the weight of the main unit and which will not amplify sound or vibration. If the installation location is not strong enough, the indoor unit may fall and cause injuries.
- If the job is done with the panel frame only, there is a risk that the unit will come loose. Please take care.

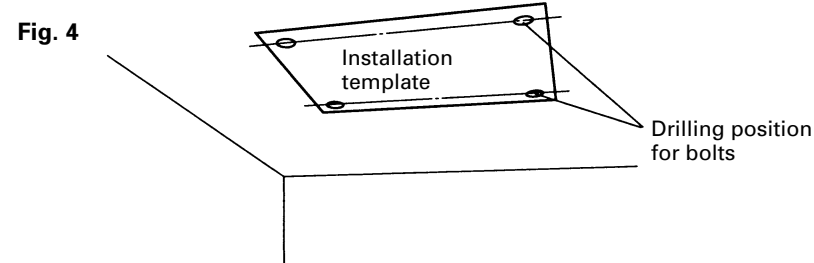
### 1. PIPING CONNECTION DIRECTION AND PREPARATION

- Select piping directions. (Fig. 3)



### 2. DRILLING HOLES FOR BOLTS AND INSTALLING THE BOLTS

- Using the installation template, drill holes for bolts (four holes). (Fig. 4)

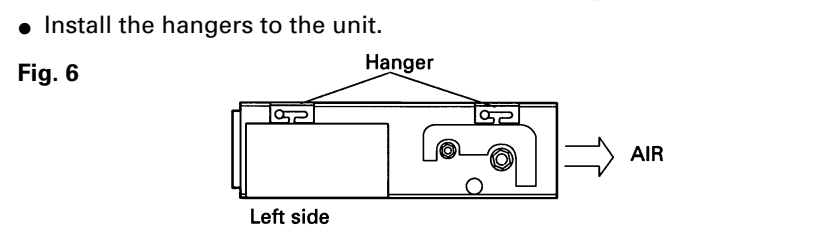
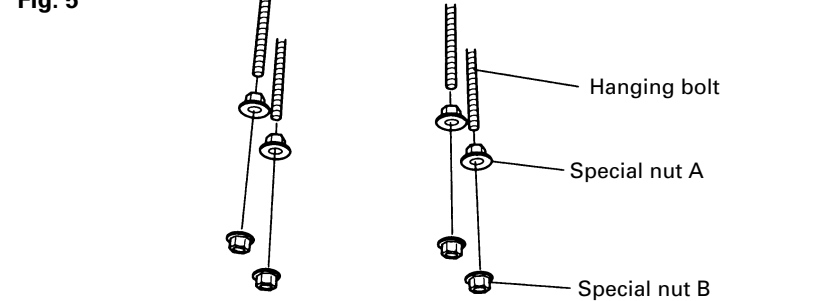


### 3. INSTALLING THE HANGERS

#### Installation method (1)

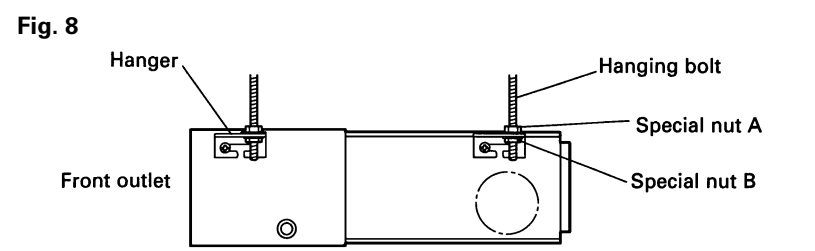
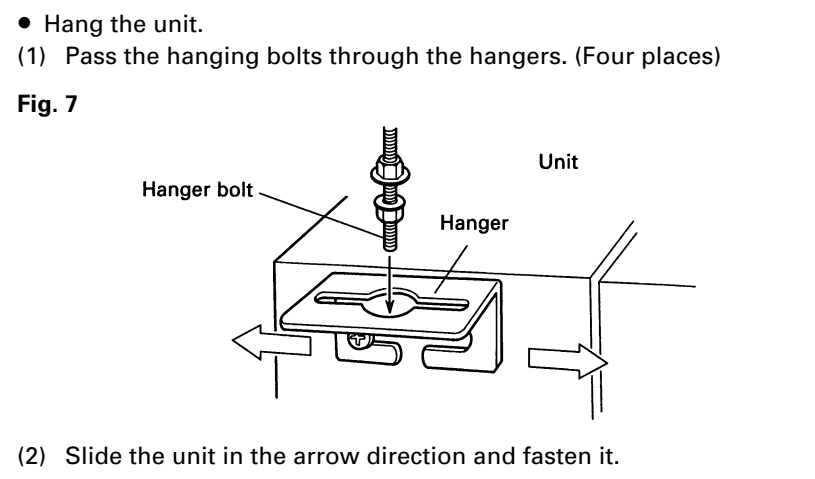
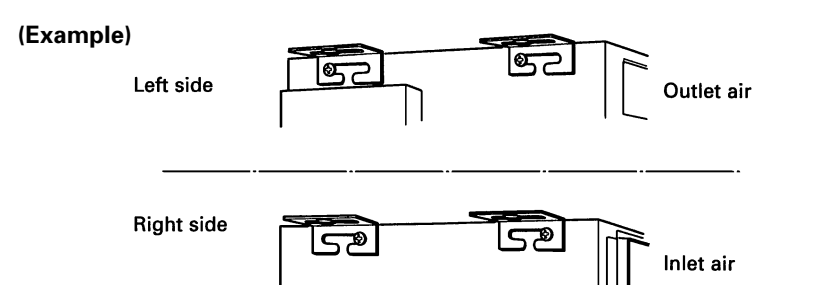
- Fasten the hanging bolts to the ceiling and install special nuts A and B.

9.81 to 14.71 N-m(100 to 150 kgf-cm)
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**WARNING**

When fastening the hangers, make the bolt positions uniform.

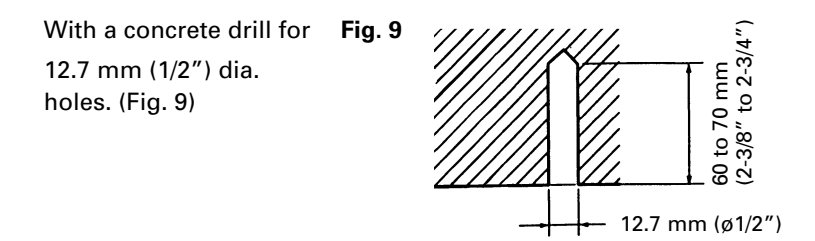


**WARNING**

Fasten the unit securely with special nuts A and B.

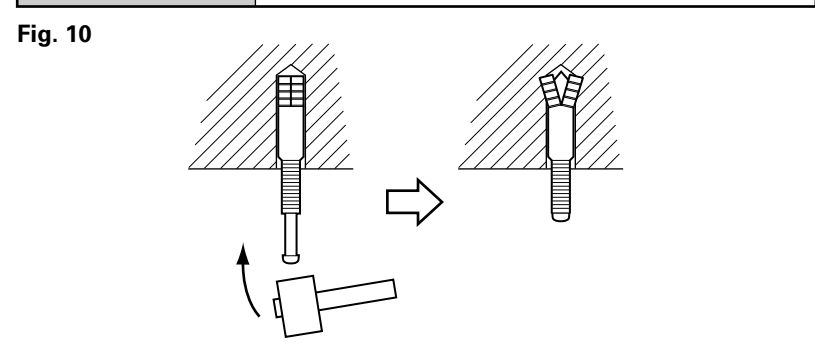
#### Installation method (2)

- Install the bolts to the ceiling at a place strong enough to hang the unit. Mark the bolt positions from the installation template.

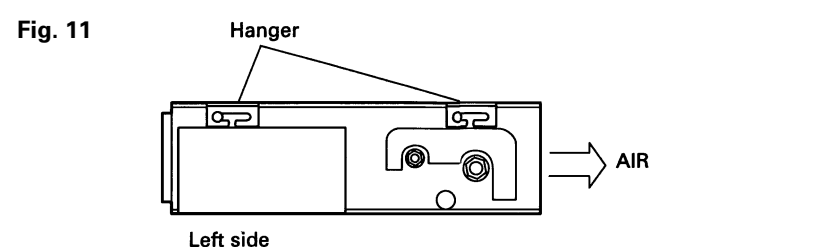


Insert the anchor bolts into the drilled holes, and drive the pins completely into the anchor bolts with a hammer.

9.81 to 14.71 N-m(100 to 150 kgf-cm)
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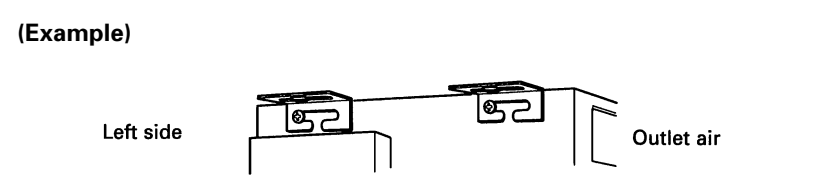


- Install the hangers to the unit.

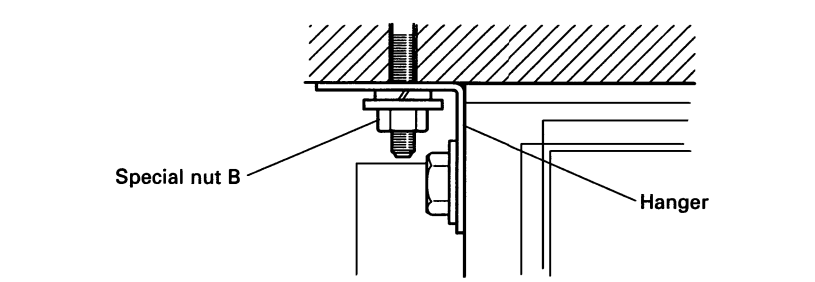
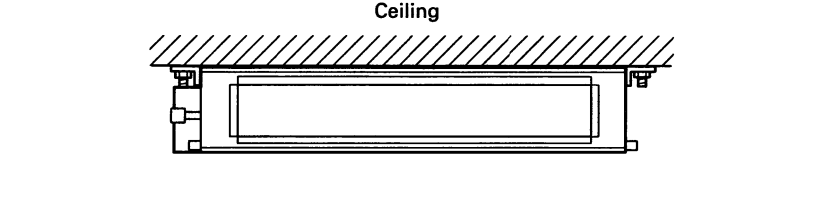


**WARNING**

When fastening the hangers, make the bolt positions uniform.

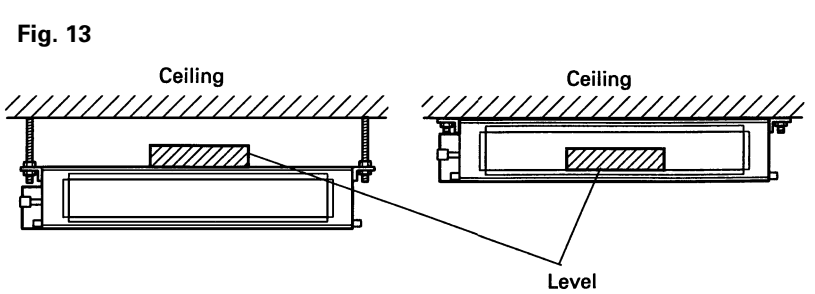


- Install the unit. Pass the unit hangers over the bolts installed to the ceiling and install the unit with the special nut B.

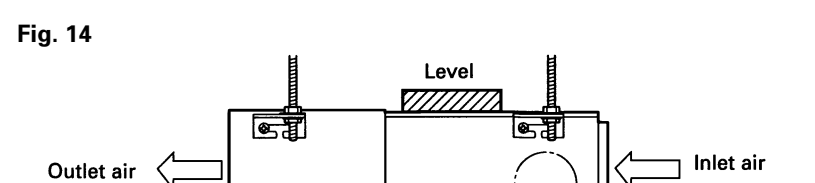


### 4. LEVELING

Base horizontal direction leveling on top of the unit.

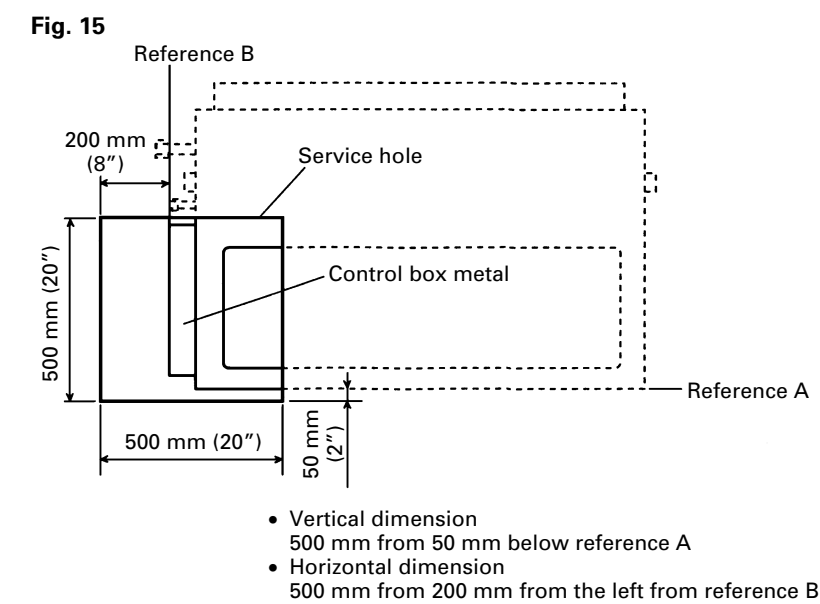


Base vertical direction leveling on the unit (right and left).



## 5. SERVICE HOLE DIMENSIONS

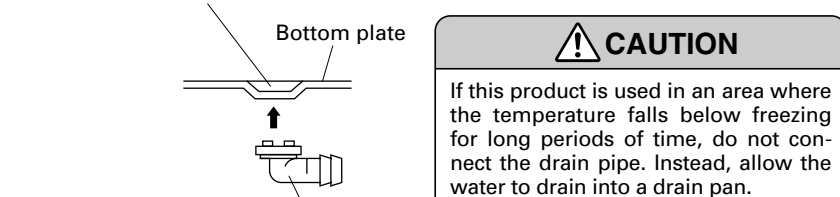
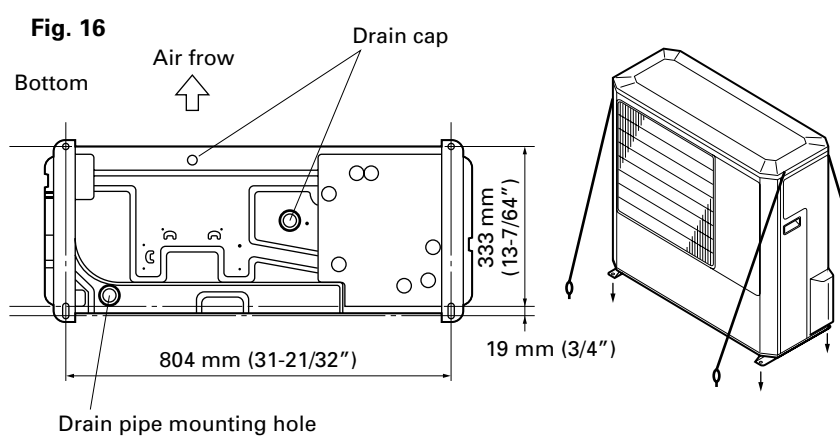
It shall be possible to install and remove the control box metal.



# 2 OUTDOOR UNIT INSTALLATION

### 1. OUTDOOR UNIT PROCESSING

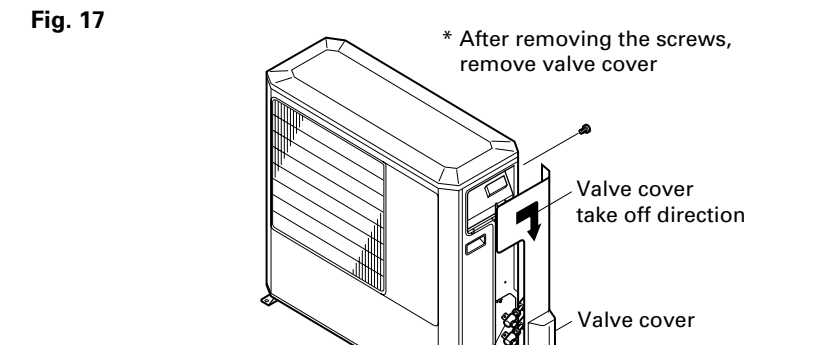
When the outdoor unit will be exposed to strong wind, fasten it with bolts at the places indicated by the arrows. (Fig. 16)



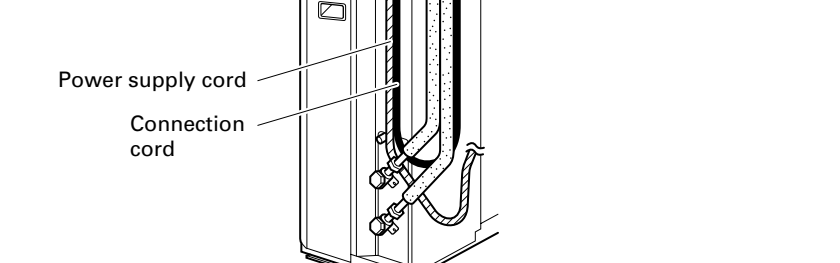
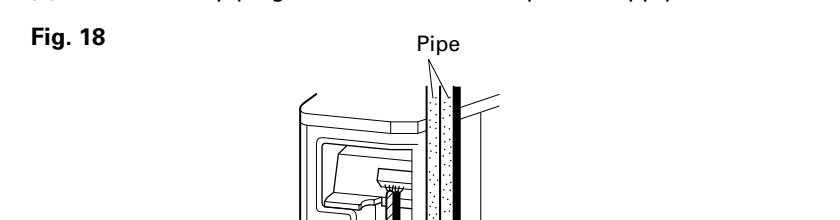
- Set the unit on a strong stand, such as one model of concrete blocks to minimize shock and vibration.
- Do not set the unit directly on the ground because it will cause trouble.

### 2. OUTDOOR UNIT CONNECTION CORD AND PIPE CONNECTION PREPARATIONS

- Remove outdoor unit valve cover.



After removing the screws, remove valve cover.

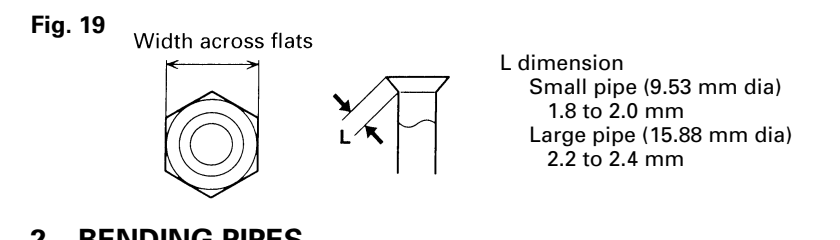


# 3 CONNECTING THE PIPING

### 1. FLARE PROCESSING

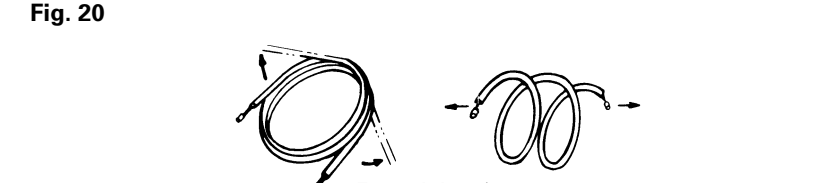
- Cut the connection pipe with pipe cutters so that the pipe is not deformed.
- Holding the pipe downward so that cuttings cannot enter the pipe and remove the burrs.
- Remove the flare nut from the indoor unit pipe and outdoor unit and assemble as shown in (Table 3) and insert the flare nut onto the pipe, and flare with a flaring tool.
- Check if the flared part "L" (Fig. 19) is spread uniformly and that there are no cracks.

Pipe	Flare nut
Small pipe	Small (width across flats 22 mm)
Large pipe	Large (width across flats 27 mm)

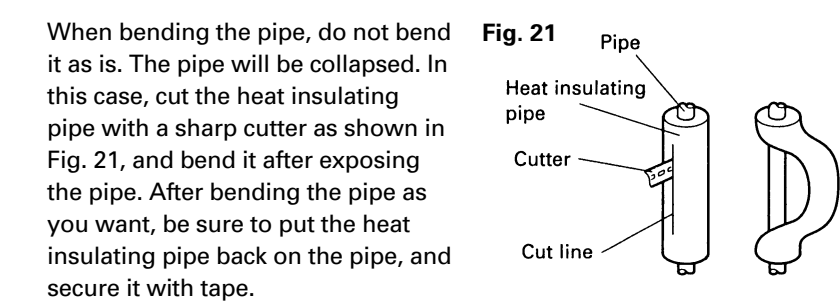


### 2. BENDING PIPES

The pipes are shaped by your hands. Be careful not to collapse them.



Do not bend the pipes in an angle more than 90°. When pipes are repeatedly bent or stretched, the material will harden, making it difficult to bend or stretch them any more. Do not bend or stretch the pipes more than three times.



**CAUTION**

- To prevent breaking of the pipe, avoid sharp bends. Bend the pipe with a radius of curvature of 150 mm or over.
- If the pipe is bent repeatedly at the same place, it will break.

### 3. CONNECTION PIPES

- Indoor unit side: Detach the caps and plugs from the pipes.

**CAUTION**

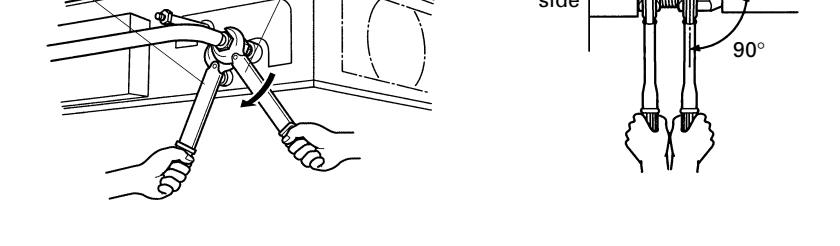
- Be sure to apply the pipe against the port on the indoor unit correctly. If the centering is improper, the flare nut cannot be tightened smoothly. If the flare nut is forced to turn, the threads will be damaged.
- Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.

Centering the pipe against port on the indoor unit, turn the flare nut with your hand.

**CAUTION**

Hold the torque wrench at its grip, keeping it in the right angle with the pipe as shown in Fig. 23, in order to tighten the flare nut correctly.

When the flare nut is tightened properly by your hand, use a torque wrench to finally tighten it.

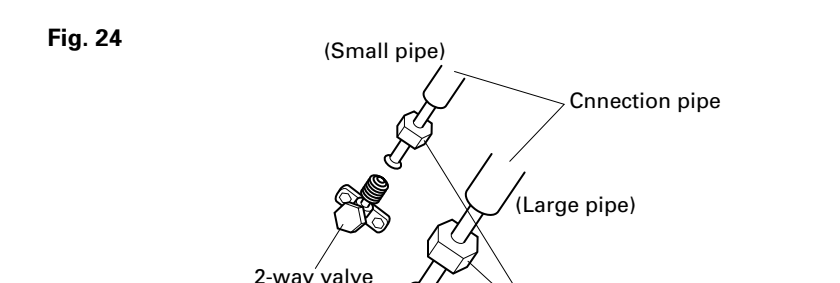


Pipe	Tightening torque
Small pipe	30.4 to 34.3 N-m (310 to 350 kgf-cm)
Large pipe	73.5 to 78.4 N-m (750 to 800 kgf-cm)

**CAUTION**

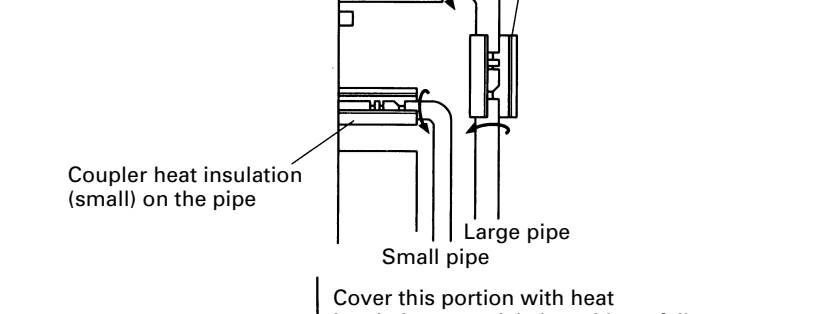
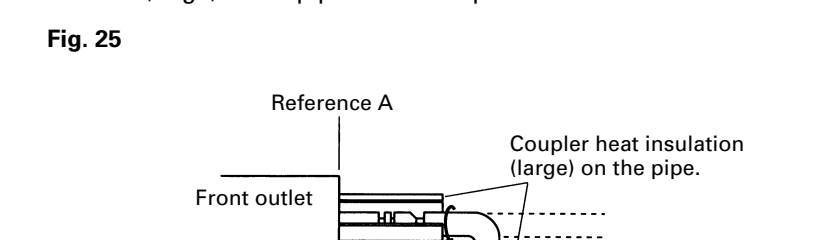
Be sure to connect the large pipe after connecting the small pipe completely.

- Outdoor unit side: Tighten the flare nut of the connection pipe at the outdoor unit valve connector. The tightening method is the same as that at the indoor side.



### 4. HEAT INSULATION ON THE PIPE JOINTS (INDOOR SIDE ONLY)

- Stick coupler heat insulation (large and small) to the place where connecting pipes.
- When using auxiliary piping with large pipe, stick coupler heat insulation (large) to the pipe at the two places shown below.



**CAUTION**

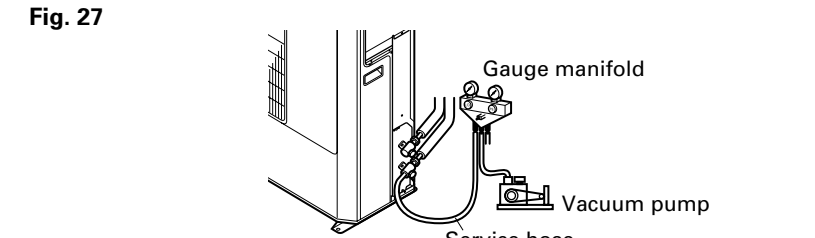
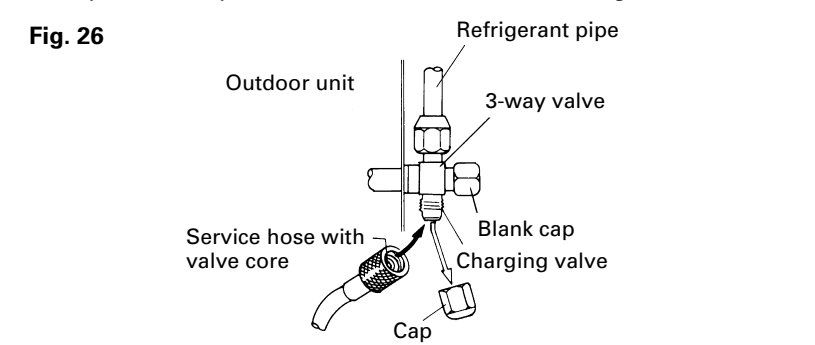
No gap should remain.

# 4 VACUUM PROCESS

**CAUTION**

Do not purge the air with refrigerants but use a vacuum pump to vacuum the installation! There is no extra refrigerant in the outdoor unit for air purging!

- VACUUM
- Remove the cap, and connect the gauge manifold and the vacuum pump to the charging valve by the service hoses.
- Vacuum the indoor unit and the connecting pipes until the pressure in them lowers to below 0.2 kPa (1.5 mmHg.)
- Disconnect the service hoses and fit the cap to the charging valve (Tightening torque: 6.87 to 8.83 N-m (70 to 90 kgf-cm).)
- Remove the blank caps, and fully open the spindles of the 2-way and 3-way valves with a hexagon wrench (Torque: 2-way valve: 6.87 to 8.83 N-m (70 to 90 kgf-cm), 3-way valve: 9.81 to 11.77 N-m (100 to 120 kgf-cm).)
- Tighten the blank caps of the 2-way valve and 3-way valve to the specified torque (19.62 to 24.53 N-m (200 to 250 kgf-cm)).



**2. ADDITIONAL CHARGE**

Refrigerant suitable for a piping length of 7.5 m is charged in the outdoor unit at the factory. When the piping is longer than 7.5 m, additional charging is necessary. For the additional amount, see the table below.

Pipe length	7.5 m (25 ft)	10 m (33 ft)	15 m (49 ft)	20 m (66 ft)	25 m (82 ft)	30 m (99 ft)	
	Heat & Cool (Reverse cycle)	None	125 g (4.4 oz)	375 g (13.2oz)	625 g (22.0 oz)	875 g (30.9 oz)	—
Additional refrigerant	Cooling model	None	50 g (1.8 oz)	150 g (5.3 oz)	250 g (8.9 oz)	350 g (12.3 oz)	450 g (15.9 oz)

Between 7.5 m and 25 m or 30 m, when using a connection pipe other than that in the table, charge additional refrigerant with 50 g (1.8 oz)/1 m (3.3 ft) (Reverse cycle model), 20 g (0.7 oz)/1 m (3.3 ft) (Cooling model) as the criteria.

**CAUTION**

- When moving and installing the air conditioner, do not mix gas other than the specified refrigerant (R22) inside the refrigerant cycle.
- When adding refrigerant, add the refrigerant from the charging valve at the completion of work.
- If the units are further apart than the maximum pipe length, correct operation can not be guaranteed.

# 5 GAS LEAKAGE INSPECTION

**CAUTION**

After connecting the piping, check the joints for gas leakage with gas leak detector.

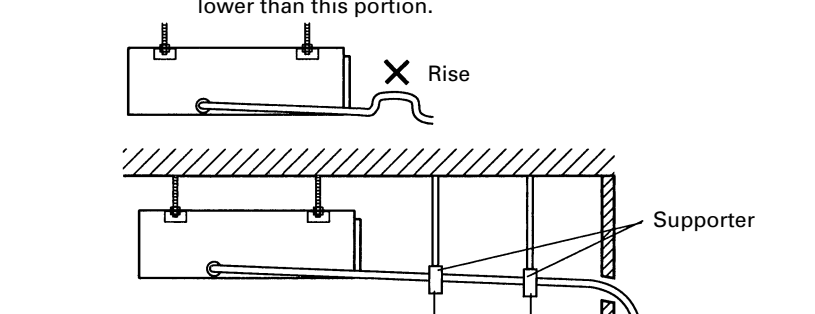
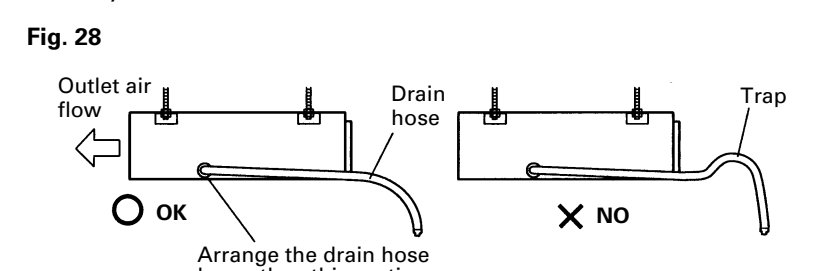
# 6 INSTALLING DRAIN HOSE

**CAUTION**

Install the drain hose in accordance with the instructions in this installation instruction sheet and keep the area warm enough to prevent condensation. Problems with the piping may lead to water leaks.

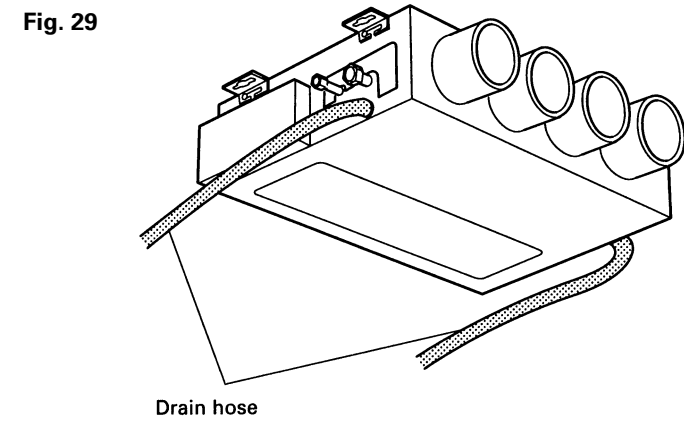
#### NOTE: INSTALL THE DRAIN HOSE

- Install the drain hose with downward gradient (1/50 to 1/100) and so there are no rises or traps in the hose.
- Use general hand polyvinyl chloride pipe (VP25) (outside diameter 38 mm) and connect it with adhesive (polyvinyl chloride) so that there is no leakage.
- When the hose is long, install supporters.
- Do not perform air bleeding.
- Always heat insulate the indoor side of the drain hose.

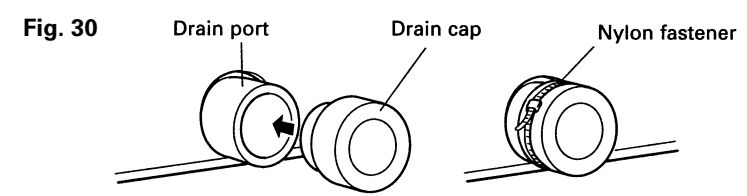


- The outside diameter of the drain port is 38 mm. Use a suitable drain hose.
- There is a drain port on both the left and right sides. Select the drain port to match the local conditions.





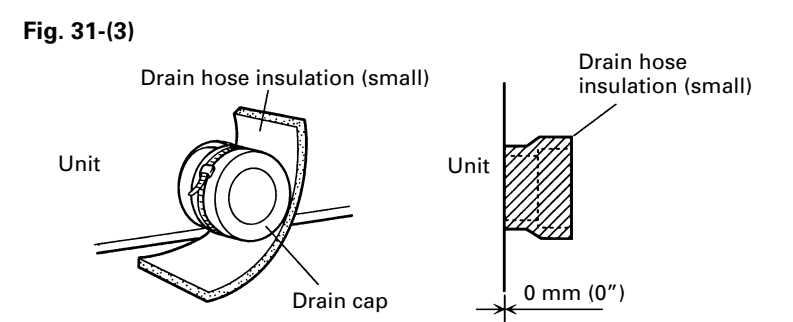
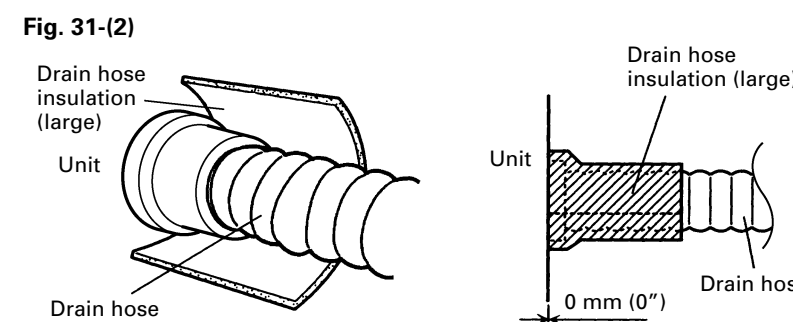
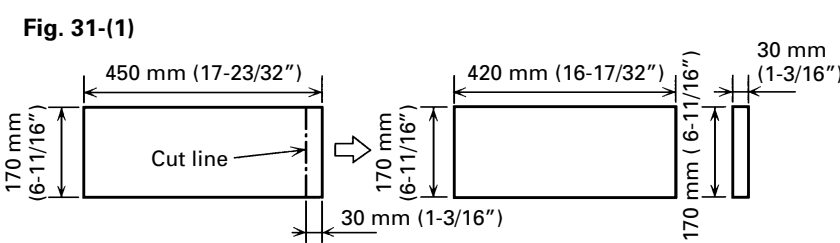
- When the unit is shipped from the factory, the drain port is on the left side (control box side).
- When using the drain port on the right side of the unit, reinstall the drain cap to the left side drain port.



### CAUTION

Always check that the drain cap is installed to the unused drain port and is fastened with the nylon fastener. If the drain cap is not installed, or is not sufficiently fastened by the nylon fastener, water may drip during the cooling operation.

- Cut the drain hose insulation at a position approximately 30 mm from the end with cutters, etc. (Fig. 31-1)
- Stick the large drain hose insulation at the drain hose installation side. (Fig. 31-2)
- Stick the small drain hose insulation at the drain cap side (Fig. 31-3)

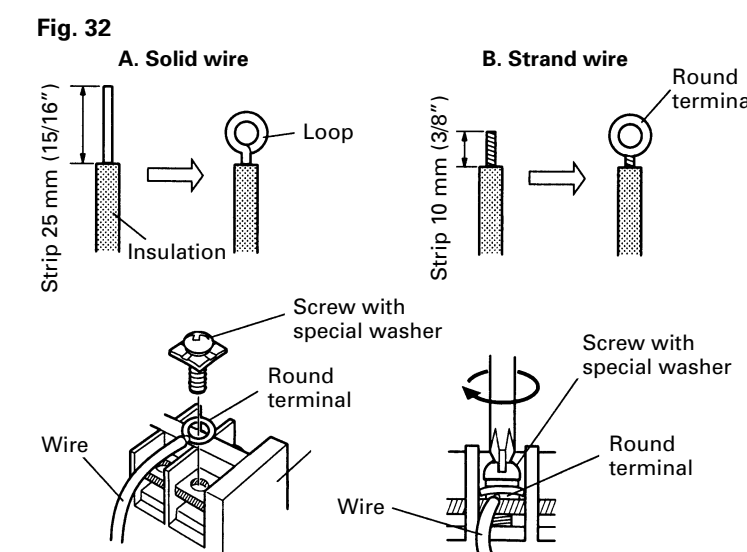


## 7 ELECTRICAL WIRING

### HOW TO CONNECT WIRING TO THE TERMINALS

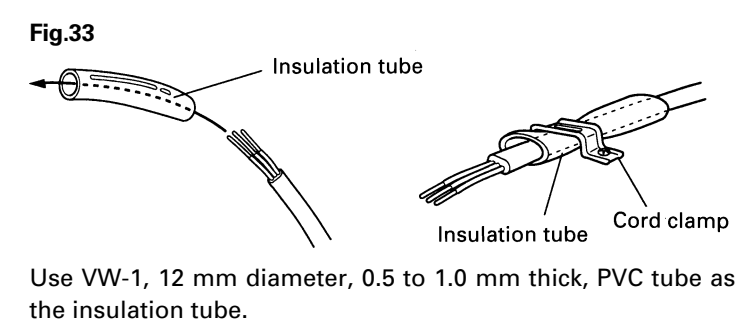
#### A. For solid core wiring (or F-cable)

- 1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 25 mm (1 5/16") to expose the solid wire.
  - 2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
  - 3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
  - 4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screwdriver.
- #### B. For strand wiring
- 1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 10 mm (3/8") to expose the strand wiring.
  - 2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
  - 3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
  - 4) Position the round terminal wire, and replace and tighten the terminal screw with a screwdriver.



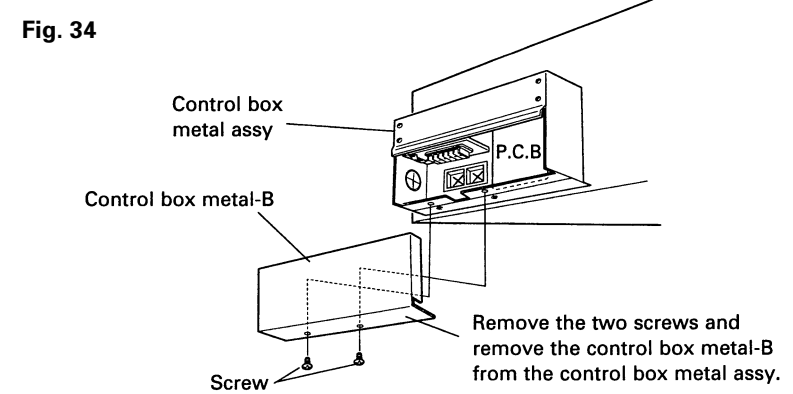
### HOW TO FIXED CONNECTION CORD AND POWER SUPPLY CORD AT THE CORD CLAMP

After passing the connection cord and power supply cord through the insulation tube, fasten it with the cord clamp.

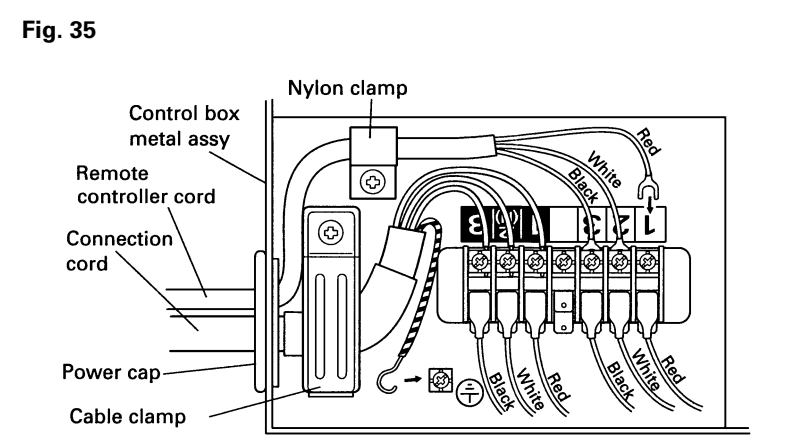


### 1. INDOOR UNIT SIDE

- 1) Remove the control box metal-B from the control box metal-8 assy.



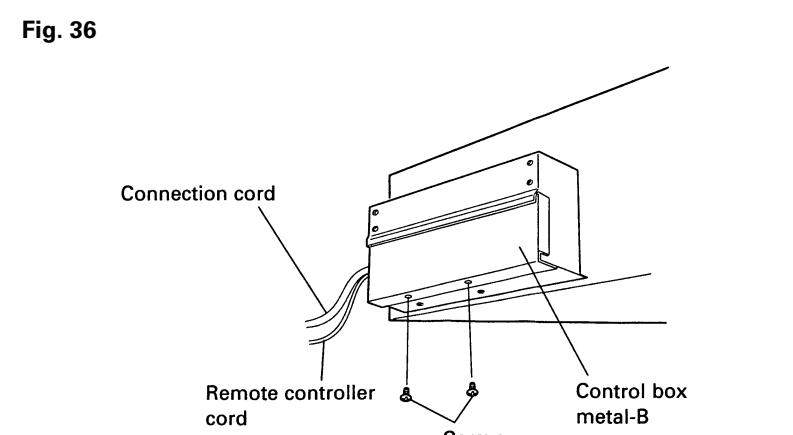
- 2) Connection cord and remote controller cord connections.
  - Clamp the connection cord with the cable clamp and the remote controller cord with the nylon clamp.
  - Connect the connection cord to the terminals with the white characters on the terminal nameplate.
  - Connect the remote controller cord to the terminals with the black characters on the terminal nameplate.



### CAUTION

- 1) Tighten the indoor unit connection cord (to the outdoor unit) indoor and outdoor unit terminal board connections firmly with the terminal board screws. Faulty connection may cause a fire.
- 2) If the indoor unit connection cord (to the outdoor unit) are wired incorrectly, the air conditioner may be damaged.
- 3) Wire the indoor unit connection cord (to the outdoor unit) by matching the numbers of the outdoor and indoor units terminal board numbers as shown in (Fig. 35).
- 4) Ground both the indoor and outdoor units by attaching a ground wire.
- 5) Unit shall be grounded in compliance with the applicable local and national codes.

- 3) Control box metal-B installation  
Fasten control box metal-B with the two screws.  
For the connection cord outlet port see Fig. 36.

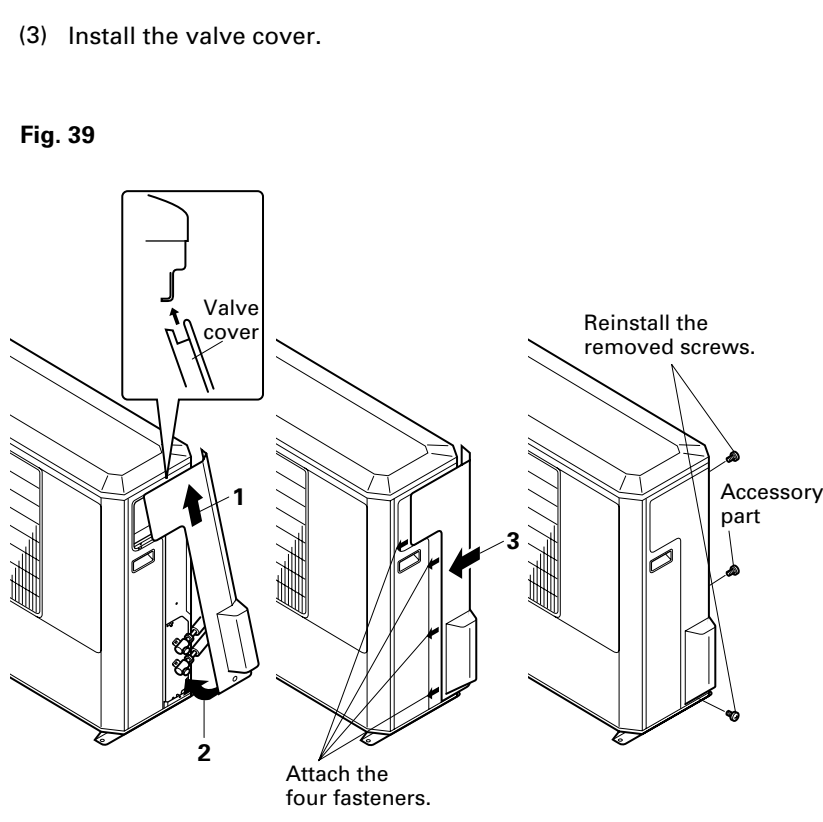
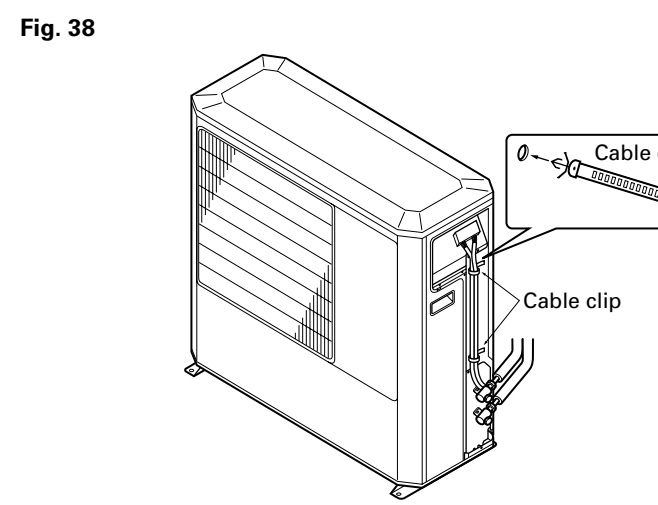
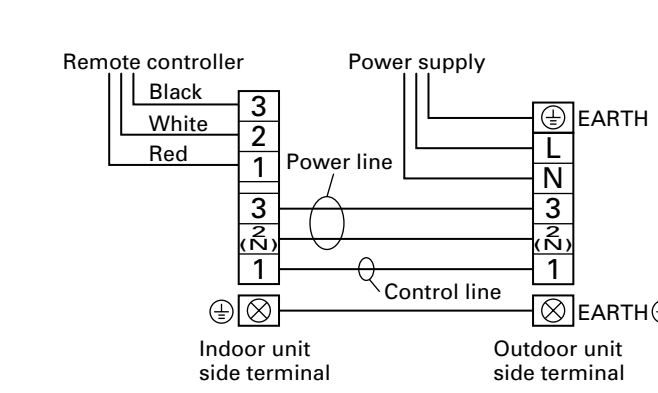
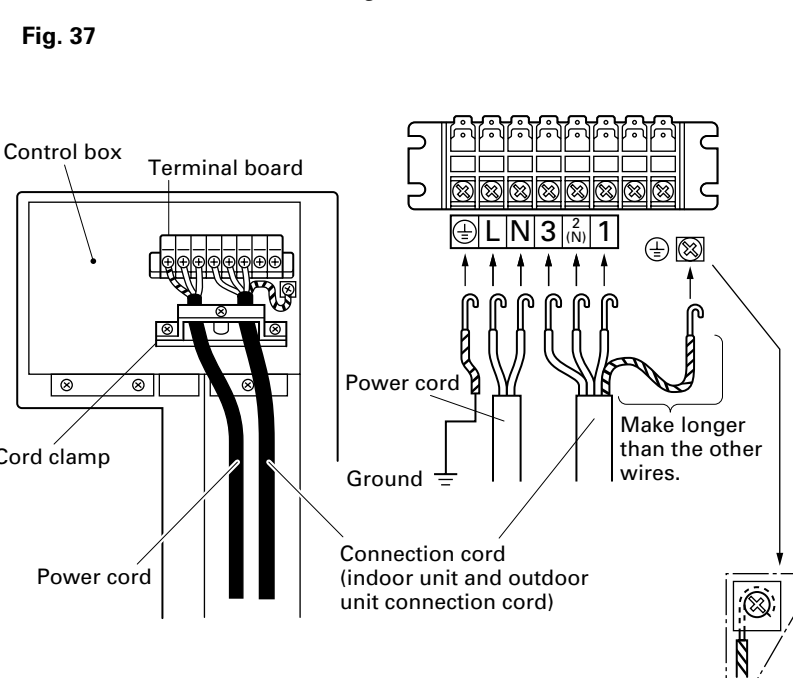


### 2. OUTDOOR UNIT SIDE

#### WARNING

- 1) Before starting work, check that power is not being supplied to the indoor unit and outdoor unit.
- 2) Match the terminal board numbers and connection cord colors with those of the indoor unit side. Erroneous wiring may cause burning of the electric parts.
- 3) Connect the connection cord and the power supply cord firmly to the terminal board. Imperfect installation may cause a fire.
- 4) Always fasten the outside covering of the connection cord and the power supply cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.)
- 5) Always connect the ground wire.

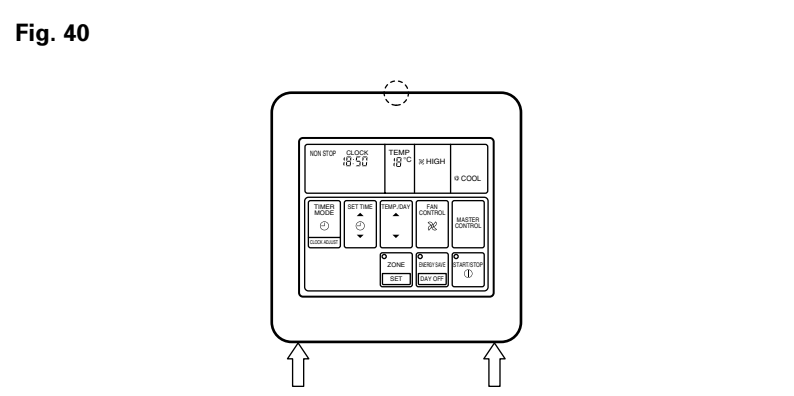
- 1) Remove outdoor unit valve cover and connect the power supply cord and the outdoor unit connection cord wired at the indoor unit.
- 2) Fasten the power supply cord and connection cord with cable clip and binders as shown in (Fig. 38).



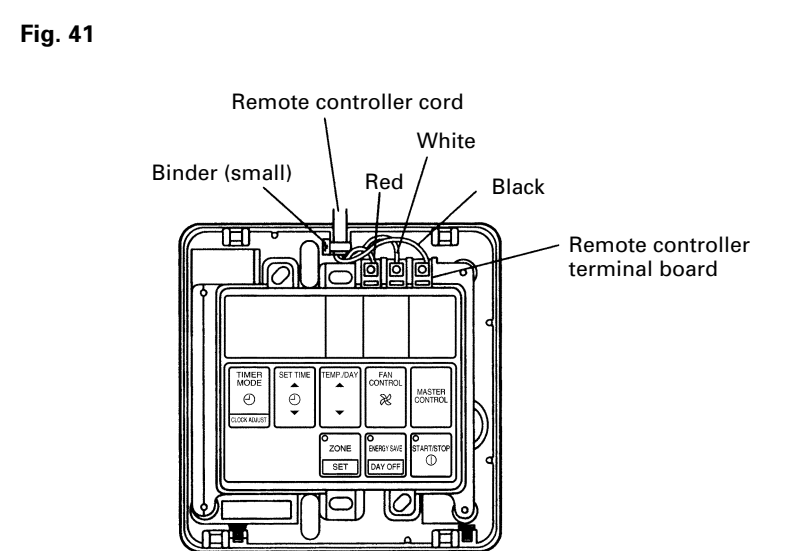
## 8 REMOTE CONTROLLER INSTALLATION

When mounting the remote controller, refer to the enclosed REMOTE CONTROLLER INSTALLATION INSTRUCTION SHEET. Then, make the necessary settings on both the remote controller and the main unit.

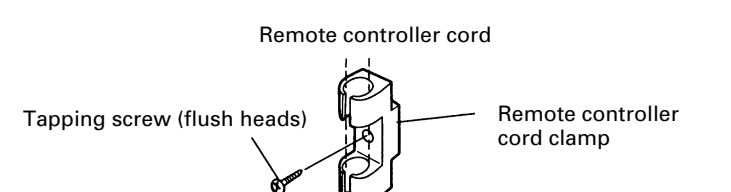
- Insert the end of a flat blade screwdriver at the arrow parts of the groove at the side of the remote controller case and remove the remote controller case top by turning the screwdriver.
- Disconnect the remote controller cord from the remote controller terminal board.



- 1) When remote controller exposed
  - 1) Make a notch in the thin part (part of Fig. 40) at the remote controller case top and bottom with nippers, file, etc.
  - 2) Connect the remote controller cord to the remote controller terminal board specified in (Fig. 41).
  - 3) Clamp the remote controller cord sheath with the binder (small) as shown in Fig. 41.
  - 4) Cut off the excess binder.
  - 5) Clamp the remote controller cord to a wall, etc. with the remote controller cord clamp furnished (Fig. 42).

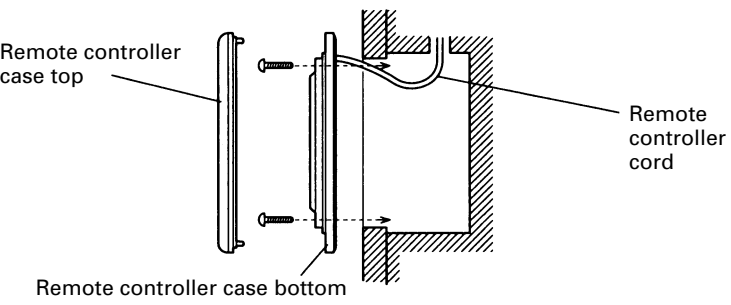


### Fig. 42



- 2) When remote controller cord embedded
  - 1) Embed the remote controller cord and box.
  - 2) Pass the remote controller cord through the hole at the remote controller case bottom and install the cord to the box. (Fig. 43)
  - 3) Connect the remote controller cord to the remote controller terminal board specified in (Fig. 41).

### Fig. 43 [Example]



- After wiring work is complete, return the remote controller case top to its original state.

### CAUTION

- 1) Do not bundle the remote controller cord, or wire the remote controller cord in parallel, with the indoor unit connection wire (to the outdoor unit) and the power supply cord. It may cause erroneous operation.
- 2) When installing the remote controller and cord near a source of electromagnetic waves, separate the remote controller from the source of the electromagnetic waves and use shielded cord.
- 3) Do not touch the remote controller PC board and PC board parts directly with your hands.

## 9 POWER

### WARNING

- 1) The rated voltage of this product is to 220-240 V 50 Hz.
- 2) Before turning on the verify that the voltage is within the 198 V to 264 V range.
- 3) Always use a special branch circuit and install a special receptacle to supply power to the air conditioner.
- 4) Use a circuit breaker and receptacle matched to the capacity of the air conditioner. (Install in accordance with standard.)  
When connecting the power supply to the outdoor unit, always install a circuit breaker between the outdoor unit and the power supply. Use the circuit breaker has an isolation distance of at least 3 mm between the contacts of each pole.
- 5) Perform wiring work in accordance with standards so that the air conditioner can be operated safely and positively.
- 6) Install a leakage circuit breaker in accordance with the related laws and regulations and electric company standards.

### CAUTION

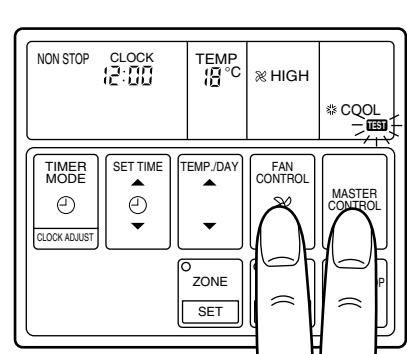
- 1) The power source capacity must be the sum of the air conditioner current and the current of other electrical appliances. When the current contracted capacity is insufficient, change the contracted capacity.
- 2) When the voltage is low and the air conditioner is difficult to start, contact the power company the voltage raised.

## 10 TEST RUNNING

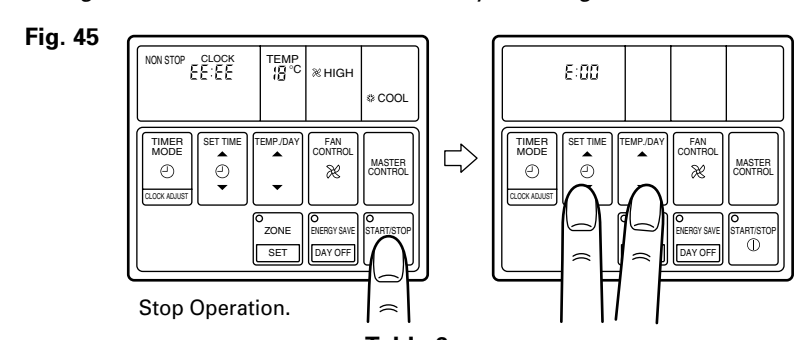
### 1. REMOTE CONTROLLER

- Supply power to the crankcase heater 12 hours before the start of operation in the winter.
- For test running, when the remote controller FAN CONTROL button and MASTER CONTROL button are pressed simultaneously for more than three seconds when the air conditioner is not running, the air conditioner starts and TEST is displayed on the remote controller display. However, the TEMP/DAY setting button does not function, but all other buttons, displays, and protection functions operate (Fig. 44).

### Fig. 44



- When EE : EE blinks at the current time display, there is an error inside the air conditioner. If the SET TIME button ( ) and TEMP/DAY button ( ) are pressed simultaneously for more than three seconds, the self diagnosis check will start and the error contents will be displayed at the current time display (Fig. 45). When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation (Fig. 45). Process the error contents by referring to (Table 6).



Error code	Error contents
E-00	Communication error (indoor unit → remote controller)
E-01	Communication error (indoor unit → outdoor unit)
E-02	Room temperature sensor open
E-03	Room temperature sensor shortcircuited
E-04	Indoor heat exchanger temperature sensor open
E-05	Indoor heat exchanger temperature sensor shortcircuited
E-06	Outdoor heat exchanger temperature sensor open
E-07	Outdoor heat exchanger temperature sensor shortcircuited
E-08	Power source connection error
E-09	Float switch operated
E-0A	Outdoor temperature sensor open
E-0B	Outdoor temperature sensor shortcircuited
E-0C	Discharge pipe temperature sensor open
E-0D	Discharge pipe temperature sensor shortcircuited
E-0E	Outdoor high pressure abnormal
E-0F	Discharge pipe temperature abnormal
E-11	Model abnormal
E-12	Indoor fan abnormal
E-13	Outdoor signal abnormal
E-14	Outdoor EEPROM abnormal

- To stop test running, press the START/STOP button.
- For the operation method, refer to the operating manual and perform operation check.
- Check that there are no abnormal sounds or vibration sounds during the test running.

### 2. OUTDOOR UNIT

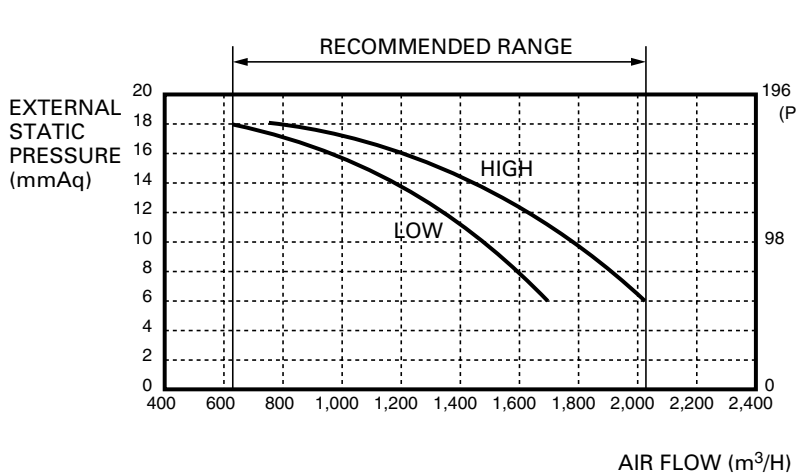
When the outdoor temperature drops, the outdoor unit's fans may switch to low speed, or one of the fans may stop intermittently. The LED lamps operate as follows (Table 7) according to the error contents. The LED lamps are on the outdoor unit board.

Error display	LED1	LED2	Error contents
Quick flash continued	ON 0.1 sec. OFF 0.1 sec.	ON 0.1 sec. OFF 0.1 sec.	Model abnormal or EEPROM abnormal
1 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Power source connection error
2 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Discharge temperature sensor error
3 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Outdoor heat exchanger temperature sensor error
4 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Outdoor temperature sensor error
5 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Communication signal error
6 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Indoor unit error
7 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	Discharge temperature abnormal
8 quick flash repeated	ON 0.5 sec. OFF 2 sec.	ON 0.5 sec. OFF 2 sec.	High pressure abnormal

When the fault is cleared, the LED lamp goes off. However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

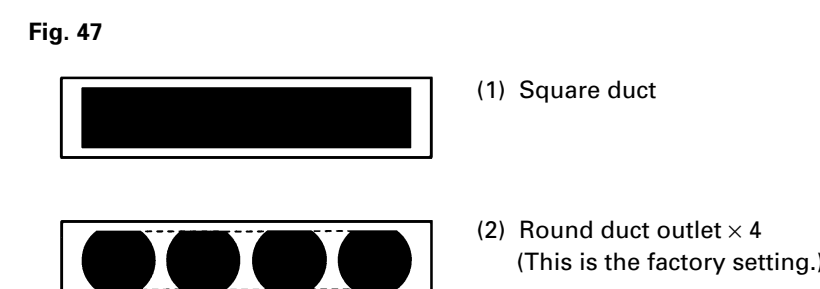
## 11 STATIC PRESSURE CHARACTERISTIC

### Fig. 46 FAN PERFORMANCE AND AIR FLOW EXTERNAL STATIC PRESSURE



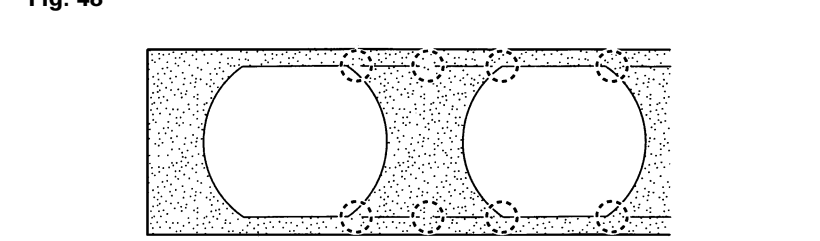
## 12 OUTLET DUCT CONNECTION

### 1. DUCT INSTALLATION PATTERN (CUT PART)

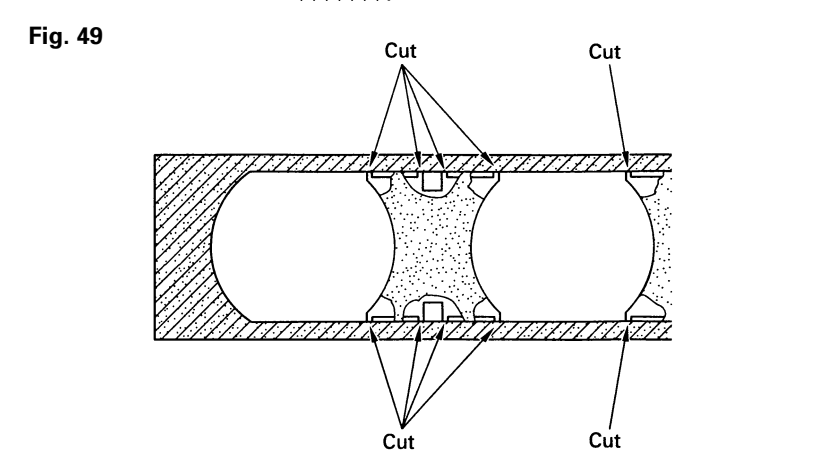


### 2. WHEN USING AS A SQUARE DUCT

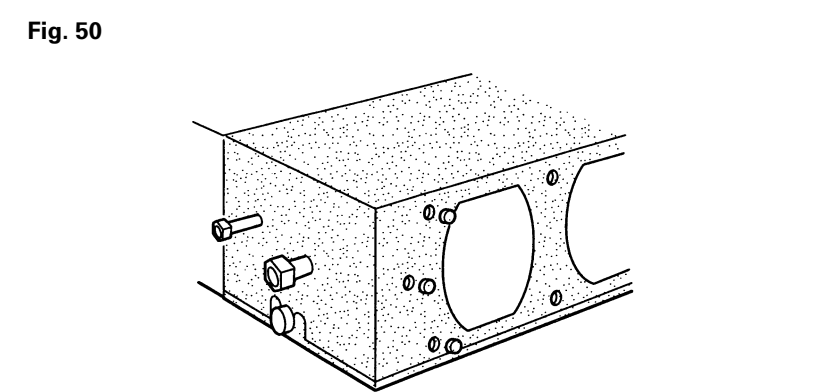
- 1) Cut the slit seam with a cutter.



- 2) Turn up the insulation around the points to be cut according to the outlet port shape working points so that the insulation does not stick out at the part.

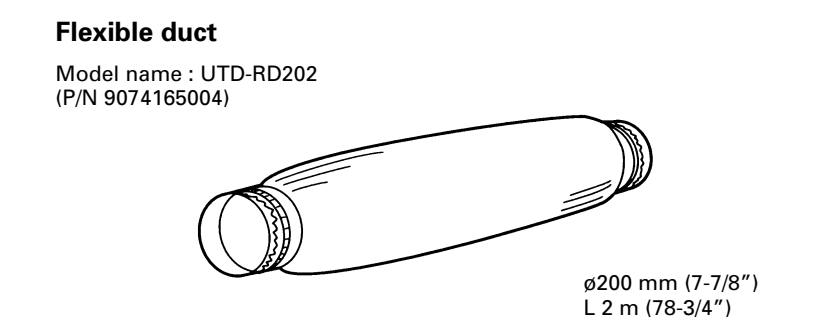
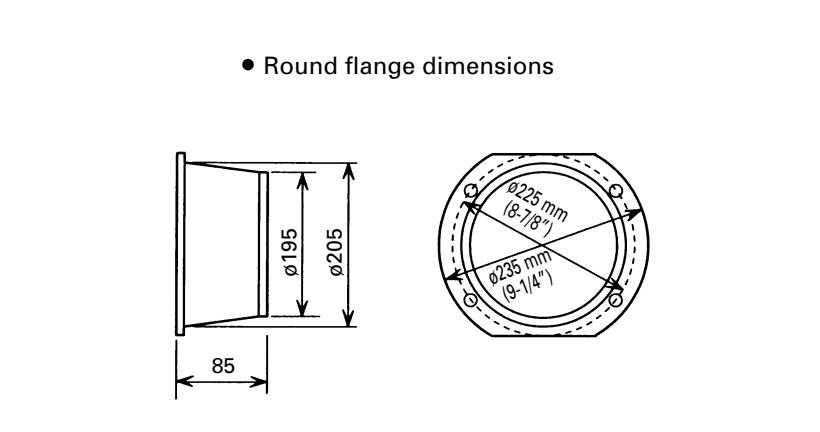
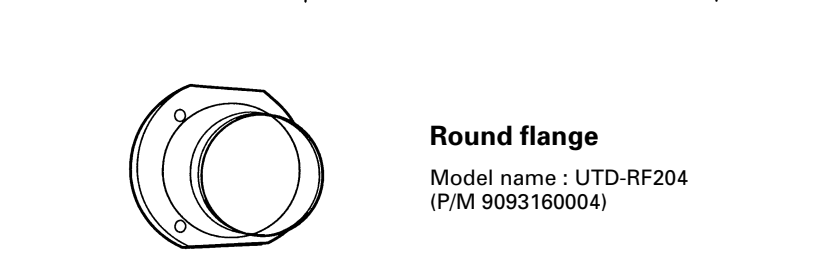
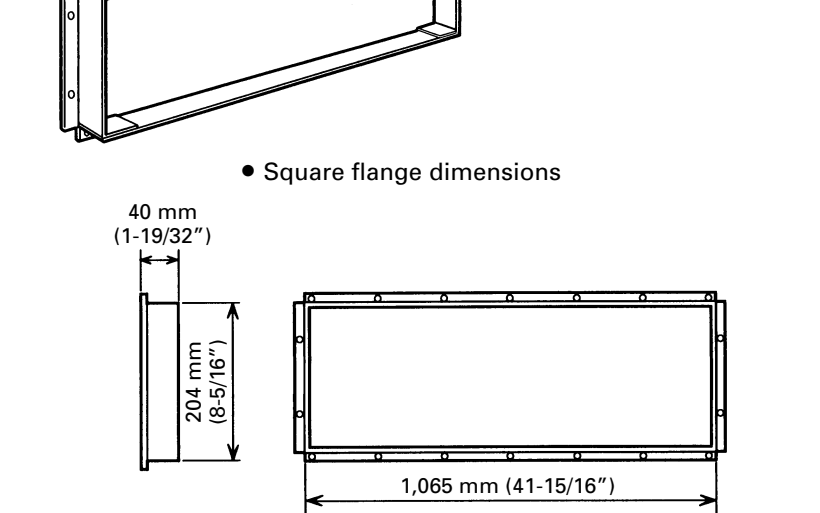
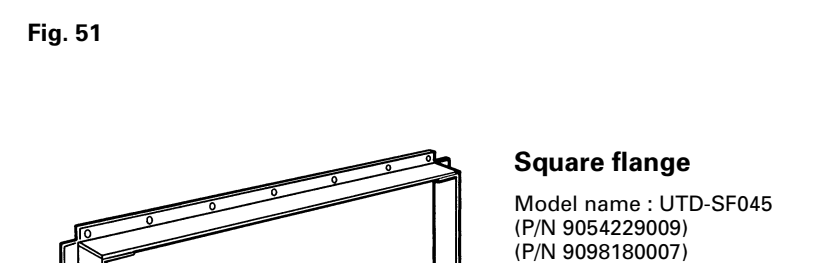


- 3) Cut with nippers and remove the sheet metal.
- 4) Since there is a slit in the insulation, use radio pliers, tweezers, etc. to stretch tight the screw hole part used when installing the round flange and square flange when connecting the duct.

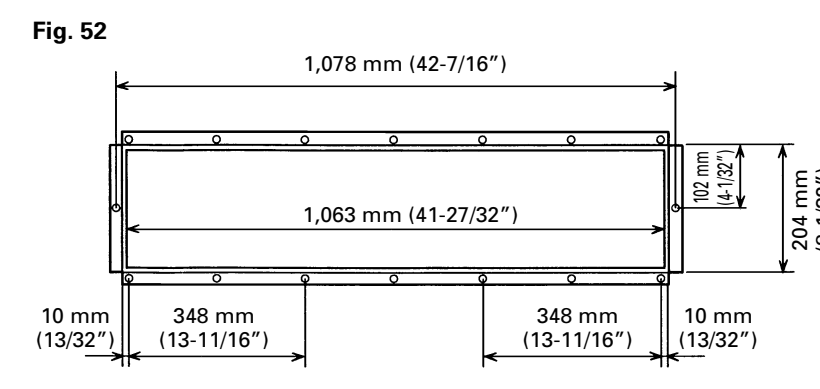


### 3. SPECIAL ITEMS

When connecting the square duct and round duct, use the optional square flange or round flange and flexible duct.



## 13 INTAKE PORT REAR COVER DIMENSIONS

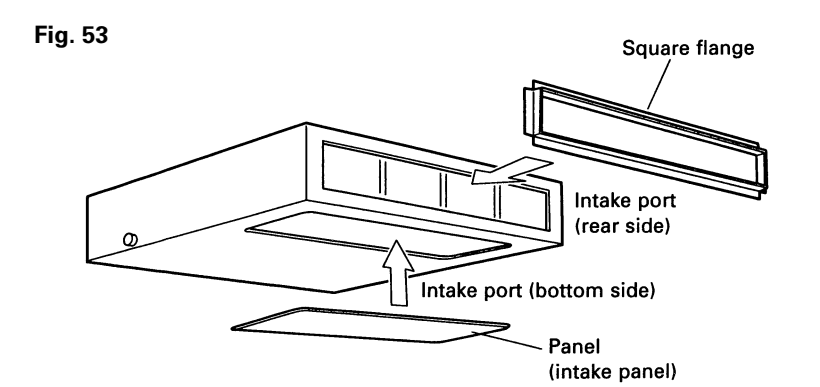


## 14 INTAKE PORT

- 1) The square flange (rear side) and panel (intake panel) are installed at the factory at the places shown in Fig. 53.
- 2) When taking in air from the bottom side, reinstall the square flange (rear side) and panel (intake panel).

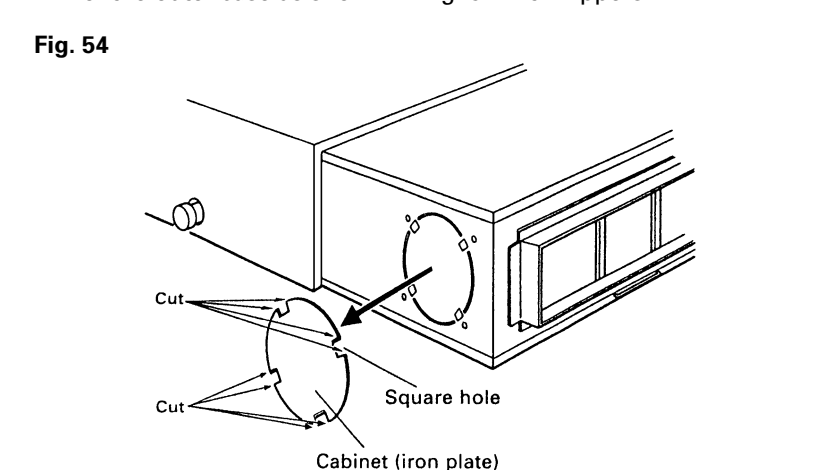
### CAUTION

When air is taken in from the bottom side, the operating sound of the product will easily enter the room. Install the product and intake grilles where the affect of the operating sound is small.



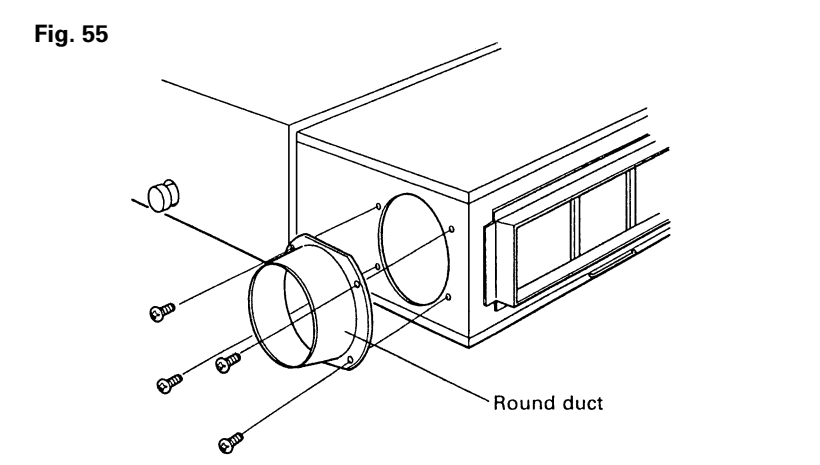
## 15 FRESH AIR IN TAKE (Processing before use)

- 1) When taking in fresh air, cut a slit shaped cabinet in the left side of the outer case as shown in Fig. 54 with nippers.



### CAUTION

- 1) When removing the cabinet (iron plate), be careful not to damage the indoor unit internal parts and surrounding area (outer case).
- 2) When processing the cabinet (iron plate), be careful not to injure yourself with burrs, etc.



- 3) Connect the duct to the round flange.
- 4) Seal with a band and vinyl tape, etc. so that air does not leak from the connection.

