SPLIT TYPE AIR CONDITIONER

# Cassette Type

# INSTALLATION INSTRUCTION SHEET

**(PART NO. 9365388020)**

**For authorized service personnel only.**

| | |
|---|---|
| ⚠ **WARNING!** | This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user. |
| ⚠ **CAUTION!** | This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user, or damage to property. |

**⚠ WARNING**

1. **For the air conditioner to operate satisfactorily, install it as outlined in this installation instruction sheet.**
2. **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.**
3. **Installation work must be performed in accordance with national wiring standards by authorized personnel only.**
4. **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.**
5. **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 |
|---|---|---|
| Coupler heat insulation | 2 | For indoor side pipe joint |
| Remote controller cord clamp | 10 | For installing the remote controller cord |
| Screw | 10 | For installing the remote controller cord clamp |
| | 2 | For installing the remote controller |
| Special nut A (large flange) | 4 | For installing indoor unit |
| Special nut B (small flange) | 4 | For installing indoor unit |
| Remote controller | 1 | Installation to indoor unit |
| Template | 1 | For ceiling hole cutting |
| Binder | 2 (large) | For remote controller cord binding |
| | 1 (small) | For remote controller and remote controller cord binding |
| Blower cover insulation | 2 | For discharged air |
| Hook wire | 2 | For installing intake grille |

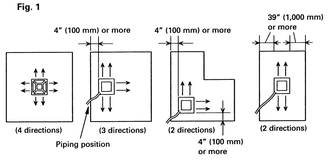
### OUTDOOR UNIT ACCESSORIES

| | | |
|---|---|---|
| Hexagon wrench | 1 | For opening the refrigerant valve on the outdoor unit |
| Drain pipe | 1 | For outdoor unit drain piping work [Heat & Cool (Reverse cycle) model only] |
| Drain cap | 2 | |

## SELECTING THE MOUNTING POSITION

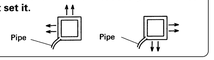
Especially, the installation place is very important for the split type air conditioner because it is very difficult to move from place to place after the first installation.
Decide the mounting position together with the customer as follows:
The discharge direction can be selected as shown below.

**Fig. 1**




**⚠ CAUTION**

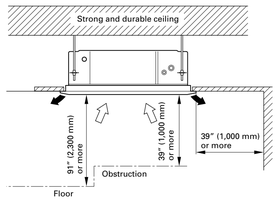
**Since 2-way outlet as shown below causes performance problems, do not set it.**




### INDOOR UNIT

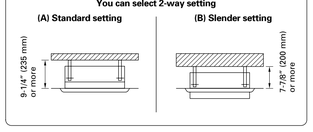
(1) Install the indoor unit on a place having a sufficient strength so that it withstands against the weight of the indoor unit.
(2) The inlet and outlet ports should not be obstructed; the air should be able to blow all over the room.
(3) Leave the space required to service the air conditioner (Fig. 2).
(4) The ceiling rear height as shown in Fig. 3.
(5) A place from where the air can be distributed evenly throughout the room by the unit.
(6) A place from where drainage can be extracted outdoors easily.
(7) Install the unit where noise and vibrations are not amplified.

**Fig. 2**




This mechanism enables the cassette body to move 35 mm downward and realizes installation to the space of 200 mm. No special works and option is needed.

**Fig. 3**



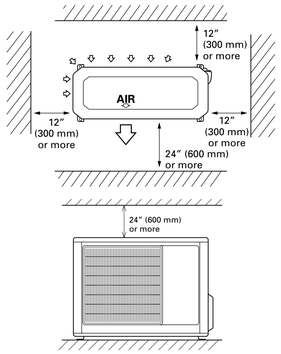

### OUTDOOR UNIT

**⚠ WARNING**

1. **Install the unit where it will not be tilted by more than 5°**
2. **When installing the outdoor unit where it may exposed to strong wind, fasten it securely.**

(1) If possible, do not install the unit where it will exposed to direct sunlight. (If necessary, install a blind that does not interfere with the air flow.)
(2) Install the outdoor unit in a place where it will be free from being dirty or getting wet by rain as much as possible.
(3) Install the unit when connection to the indoor unit is easy.
(4) During heating operation, drain water flows from the outdoor unit. Therefore, install the outdoor unit in a place where the drain water flow will not be obstructed.
(5) Do not place animals and plants in the path of the warm air.
(6) Take the air conditioner weight into account and select a place where noise and vibration are small.
(7) Select a place so that the warm air and noise from the air conditioner do not disturb neighbors.
(8) Provide the space shown in Fig. 4 so that the air flow is not blocked. Also for efficient operation, leave open three of the four directions front, rear, and both sides.
(9) Do not set the unit directly on the ground because it will cause trouble.
(10) Set the unit on a strong stand, such as one made of concrete blocks to minimize shock and vibration.

**Fig. 4**




## CONNECTION PIPE REQUIREMENT

**Table 1**

| Diameter | | Maximum length | Maximum height (between indoor and outdoor) |
|---|---|---|---|
| Small | Large | | |
| 3/8" (9.53 mm) | 5/8" (15.88 mm) | 82 ft (25 m) | 50 ft (15 m) |

- 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:

**Table 2**

| | | |
|---|---|---|
| Power supply cord (mm²) | MAX | 4.0 |
| | MIN | 3.5 |
| Connection cord (mm²) | MAX | 2.5 |
| | MIN | 1.0 |
| Fuse/Breaker capacity (A) | | 30 |

- Always use H07RN-F or equivalent to the connection cord.
- 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

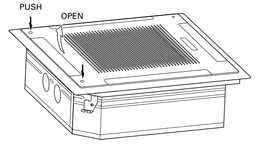
**⚠ WARNING**

- **Install the air conditioner in a location which can withstand a load do 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.**

### REMOVING THE INTAKE GRILLE

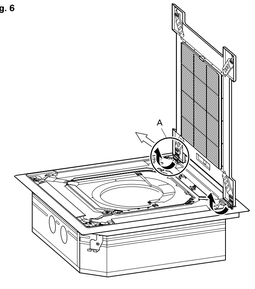
(1) Push the intake grille pushbuttons (two places).
(2) Open the intake grille.

**Fig. 5**




(3) Remove the grille hinge wire.

**Fig. 6**




- Pull up while pressing the B section (Fig. 7).

**Fig. 7 Part A detail view**

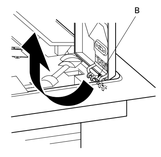


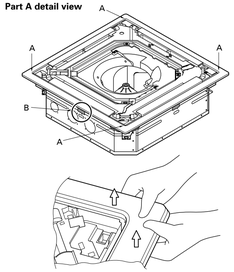

**Fig. 8 Part A section view**


(4) Remove the intake grille.

### REMOVING THE PANEL FRAME

- Pull up the corner sections (A) of the panel frame as shown in Fig. 9 (4 locations).

**Fig. 9 Part A detail view**




- Pull up in the direction of the arrow while holding down the C section of Fig. 10 (4 locations).

**Fig. 10 Part B detail view**

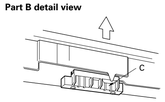
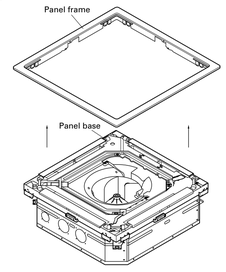



**Fig. 11**

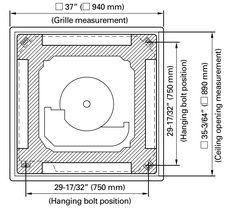



**⚠ CAUTION**

**Always remove the panel frame after removing the intake grille.**

### 1. POSITION THE CEILING HOLE AND HANGING BOLTS

**Fig. 12**




### 2. HANGING PREPARATIONS

- Firmly fasten the hanging bolts as shown in Fig. 13 or by another method.
- Install the hanging bolts at a place where they would be capable of holding a weight of at least 50 kgf per bolt.

**Fig. 13**

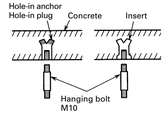
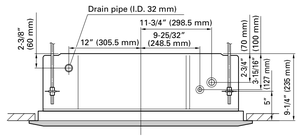
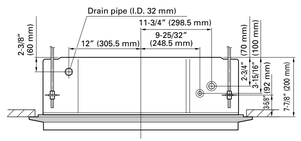



**Fig. 14**
**(A) Standard setting**




**(B) Slender setting**




### 3. BODY INSTALLATION

[The ceiling rear height is 9-1/4" (235 mm) or more.] [Standard setting]
[The ceiling rear height is 7-7/8" (200 mm) or more.] [Slender setting]

(1) Install special nut A, then special nut B onto the hanging bolt (Fig. 15).
(2) Raise the body and mount its hooks onto the hanging bolt between the special nuts (Fig. 15).
(3) Turn special nut B to adjust the height of the body (Fig. 15).
(4) Leveling
Using a level, or vinyl hose filled with water, fine adjust so that the body is level.

**⚠ WARNING**

**Perform final tightening by tightening the double nut firmly.**

**Fig. 15**

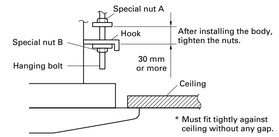
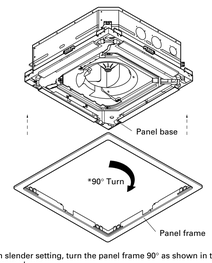



**Fig. 16**




### INSTALLING THE PANEL FRAME

**Fig. 17**




* With slender setting, turn the panel frame 90° as shown in the diagram above.

Grille setting method has been changed at the marked positions on the panel frame and panel base.

**Fig. 18**
**(A) Standard setting** **(B) Slender setting**

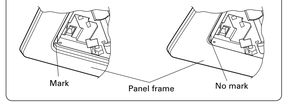
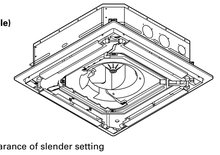



**Fig. 19**
**(Example)**



* Appearance of slender setting

## 2 INSTALLING DRAIN PIPE

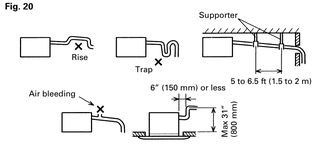
**⚠ CAUTION**

**Install the drain pipe 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 pipe.**

- Install the drain pipe with downward gradient (1/50 to 1/100) and so there are no rises or traps in the pipe.
- Use general hard polyvinyl chloride pipe (VP25) [outside diameter 1-1/4" (32 mm)] and connect it with adhesive (polyvinyl chloride) so that there is no leakage.
- When the pipe is long, install supporters.
- Do not perform air bleeding.
- Always heat insulate the indoor side of the drain pipe.
- When desiring a high drain pipe height, raise it up to 31" (800 mm) or less from the ceiling within a range of 6" (150 mm) from the body. A rise dimension over this range will cause leakage.

**Fig. 20**

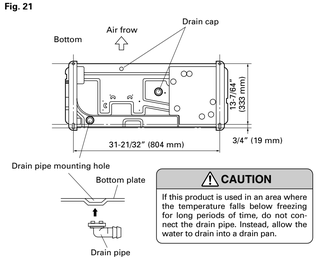


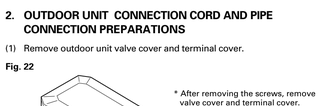

## 3 OUTDOOR UNIT INSTALLATION

### 1. OUTDOOR UNIT PROCESSING

When the outdoor unit will be exposed to strong wind, fasten it with bolts at the four places indicated by the arrows (Fig. 21).

**Fig. 21**



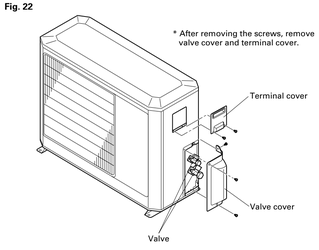

**⚠ CAUTION**

If this product is used in an area where the temperature falls below freezing for long periods of time, do not connect the drain pipe. Instead, allow the water to drain into a drain pan.

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

(1) Remove outdoor unit valve cover and terminal cover.

**Fig. 22**




(2) Connect the piping, connection cord and power supply cord.

## 4 CONNECTING THE PIPING

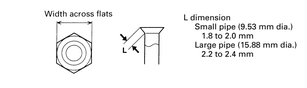
### 1. FLARE PROCESSING

(1) Cut the connection pipe with pipe cutters so that the pipe is not deformed.
(2) Holding the pipe downward so that cuttings cannot enter the pipe and remove the burrs.
(3) 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.
(4) Check if the flared part "L" (Fig. 23) is spread uniformly and that there are no cracks.

**Table 3**

| Pipe | Flare nut |
|---|---|
| Small pipe | Small (width across flats 22 mm) |
| Large pipe | Large (width across flats 24 mm) |

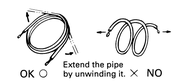
**Fig. 23**




### 2. BENDING PIPES

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

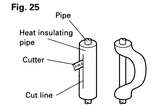
**Fig. 24**




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.

When bending the pipe, do not bend it as is. The pipe will be collapsed. In this case, cut the heat insulating pipe with a sharp cutter as shown in Fig. 25, and bend it after exposing the pipe. After bending the pipe as you want, be sure to put the heat insulating pipe back on the pipe, and secure it with tape.

**Fig. 25**



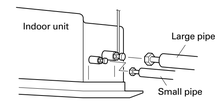

**⚠ CAUTION**

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

### 3. CONNECTION PIPES

**(1) Indoor unit side**

**Fig. 26**

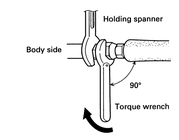



**⚠ CAUTION**

1. **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.**
2. **Do not remove the flare nut from the indoor unit pipe until immediately before connecting the connection pipe.**

When the flare nut is tightened properly by your hand, hold the body side coupling with a separate spanner, then tighten with a torque wrench (Fig. 27).

**Fig. 27**




**⚠ CAUTION**

**Hold the torque wrench at its grip, keeping it in the right angle with the pipe as shown in Fig. 27 , in order to tighten the flare nut correctly.**

**Table 4: Flare nut tightening torque**

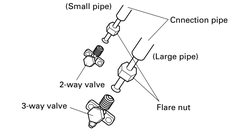
| Pipe | Tightening torque |
|---|---|
| Small pipe | 30.4 to 34.3 N·m (310 to 350 kgf·cm) |
| Large pipe | 73.5 to 78.4 N·m (750 to 800 kgf·cm) |

**⚠ CAUTION**

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

**(2) 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 as at the indoor side.

**Fig. 28**

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## 5 VACUUM PROCESS

### 1. VACUUM

(1) Remove the cap, and connect the gauge manifold and the vacuum pump to the charging valve by the service hoses.
(2) Vacuum the indoor unit and the connecting pipes until the pressure in them lowers to below 1.5 mmHg.
(3) Disconnect the service hoses and fit the cap to the charging valve (Tightening torque : 70 to 90 kgf-cm).
(4) 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: 70 to 90 kgf-cm, 3-way valve: 100 to 120 kgf-cm).
(5) Tighten the blank caps of the 2-way valve and 3-way valve to the specified torque (200 to 250 kgf-cm).

**Fig. 29**

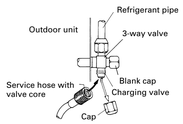
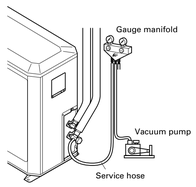



**Fig. 30**




### 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.

**Table 5**

| Pipe length | | 25 ft (7.5 m) | 33 ft (10 m) | 49 ft (15 m) | 66 ft (20 m) | 82 ft (25 m) |
|---|---|---|---|---|---|---|
| Additional refrigerant | Heat & Cool (Reverse cycle) | None | 3.5 oz (100 g) | 10.6 oz (300 g) | 17.6 oz (500 g) | 24.7 oz (700 g) |
| | Cooling model | None | 1.5 oz (43 g) | 4.5 oz (128 g) | 7.5 oz (213 g) | 10.5oz (298 g) |

Between 7.5 m and 25 m, when using a connection pipe other than that in the table, charge additional refrigerant with 1.4 oz (40 g)/3.3 ft (1 m) (Reverse cycle model), 0.6 oz (17 g)/3.3 ft (1 m) (Cooling model) as the criteria.

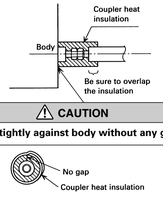
**⚠ CAUTION**

① **When charging the refrigerant, always use a measuring cylinder.**
② **Add refrigerant from the charging valve after the completion of the work.**

## 6 INSTALLING THE COUPLER HEAT INSULATION

After checking for gas leaks, insulate by wrapping insulation around the two parts (large and small) of the indoor unit coupling, using the coupler heat insulation.
After installing the coupler heat insulation, wrap both ends with vinyl tape so that there is no gap.

**Fig. 31**




**⚠ CAUTION**

**Must fit tightly against body without any gap.**

## 7 ELECTRICAL WIRING

### HOW TO CONNECT WIRING TO THE TERMINALS

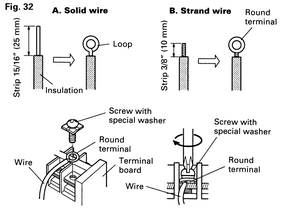
#### A. For solid core wiring (or F-cable)

(1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 15/16" (25 mm) of 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 3/8" (10 mm) of 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 using a screwdriver.

**Fig. 32**



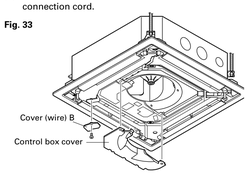

### 1. INDOOR UNIT SIDE

**⚠ WARNING**

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

(1) Remove the cotrol box cover and cover (wire) B and install the connection cord.

**Fig. 33**




(2) After wiring is complete, clamp the remote controller cord and connection cord with the cord clamp.
(3) Install the control box cover and cover (wire) B.

**Fig. 34**

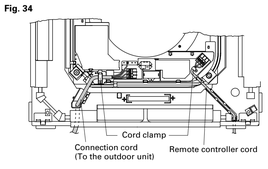
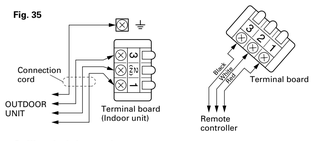



**Fig. 35**



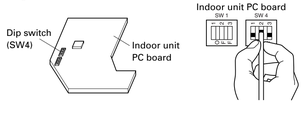

#### Ceiling height setting

Set the DIP switch for the ceiling height according to the table below.

**Table 6**

| Ceiling height (m) | | DIP-SW4 | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| 2.5 ~ 3.0 | Normal | — | OFF | OFF |
| 3.0 ~ 3.5 | High ceiling 1 | — | ON | OFF |
| More than 3.5 | High ceiling 2 | — | OFF | ON |
| Less than 2.5 | Low ceiling | — | ON | ON |

**Fig. 36**




**⚠ CAUTION**

① **If the setting for a low ceiling is selected, the capacity of the air conditioner decreases slightly.**
② **Do not set any switches other than those specified in this sheet or the remote controller installation instruction sheet. The air conditioner may not operate correctly if any switches other than those specified are changed.**

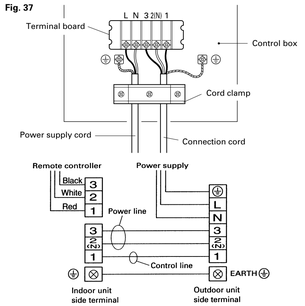
### 2. OUTDOOR UNIT SIDE

**⚠ WARNING**

① **Before starting work, check that power is not being supplied to the 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 cords 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 cord clamps. (If the insulator is chafed, electric leakage may occur.)**
⑤ **Always connect the ground wire.**

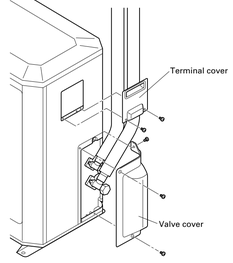
(1) Remove outdoor unit terminal cover and connect the power supply cord and the outdoor unit connection cord wired at the indoor unit.
(2) Fasten the power supply cord and connection cord with cord clamp as shown in (Fig. 37).

**Fig. 37**




(3) Install the terminal cover and valve cover.

**Fig. 38**

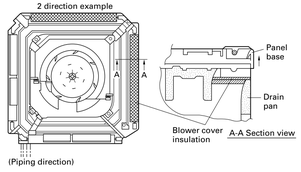



## 8 GRILLE INSTALLATION

### BLOWER COVER INSULATION

Install the blower cover insulation only when the outlet direction is not specified.
Two blower cover insulations are packed with the indoor unit.
Install the blower cover insulation at the diffuser position shown in Fig. 39. At this time, use the piping position as the criteria.

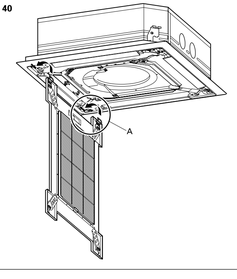
**Fig. 39**




### INSTALLING THE INTAKE GRILLE

(1) Mount the grille hinge wire to the hook shaft as shown in Fig. 40.

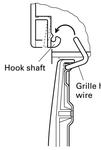
**Fig. 40**




● Latch the grille hinge wire to the hook shaft, and fasten.

**Fig. 41 Part A detail view**

**Fig. 42 Part A section view**




(2) Install the hook wire.
● Pass the hook wire through the panel base from the rear side as shown in Fig. 43, and fasten to the reinforced metal fitting of the intake grille using a screw.

**Fig. 43**

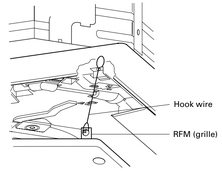
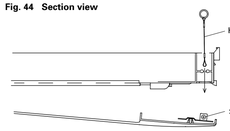
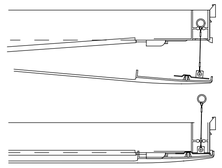



**Fig. 44 Section view**




(3) Loosen the screw, put the loop of the hook wire over it, and tighten the screw again.



**⚠ CAUTION**

**Install the intake grille hook wire to the grille assembly. If it falls, it may cause injuries.**

(4) Bring up the intake grille by pushing it up at an angle as shown in Figs. 45, 46, and fasten.

**Fig. 45**

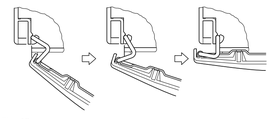
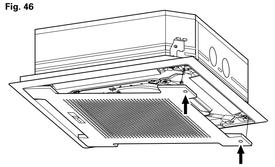


**Fig. 46**



## 9 POWER

**⚠ WARNING**

① **The rated voltage of this product is 220-240 V 50 Hz.**
② **Before turning on verify that the voltage is within the 198 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 special branch circuit breaker and receptacle matched to the capacity of the air conditioner. (Install in accordance with standard.)**
⑤ **Perform wiring work in accordance with standards so that the air conditioner can be operated safely and positively.**
⑥ **Install a leakage special branch circuit breaker in accordance with the related laws and regulations and electric company standards.**

**⚠ CAUTION**

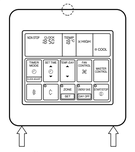
**When the voltage is low and the air conditioner is difficult to start, contact the power company the voltage raised.**

## 10 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.

**Fig. 47**



(1) When remote controller exposed
1) Make a notch in the thin part (⁘ part of Fig. 47) 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. 48).
3) Clamp the remote controller cord sheath with the binder (small) as shown in (Fig. 48).
4) Cut off the excess binder.
5) Clamp the remote controller cord to a wall, etc. with the remote controller cord clamp furnished (Fig. 49).

**Fig. 48**

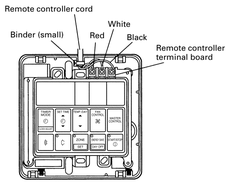
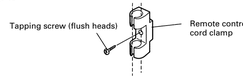
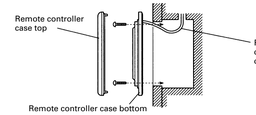



**Fig. 49**




(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. 50).
3) Connect the remote controller cord to the remote controller terminal board specified in (Fig. 48).

**Fig. 50 [Example]**




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

**⚠ CAUTION**

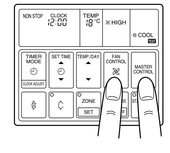
① **Do not bundle the remote controller cord, or wire the remote controller cord in parallel, with the indoor unit connection wire (to the outdoor unit) and the power supply cord. It may cause erroneous operation.**
② **When installing the remote controller and cord near a source of electromagnetic waves, 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.**

## 11 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 SET TEMP./DAY setting button does not function, but all other buttons, displays, and protection functions operate (Fig. 51).

**Fig. 51**




● When EE:EE blinks at the current time display, there is an error inside the air conditioner. If the SET TIME button (▾) and SET 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. 52). When the operation lamp lights, press the START/STOP button and after operation lamp goes off, perform the same operation (Fig. 52). Process the error contents by referring to (Table 7).

**Fig. 52**

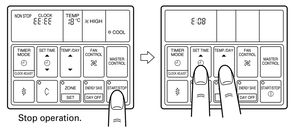



**Table 7**

| 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 shorted |
| E:04 | Indoor heat exchanger temperature sensor open |
| E:05 | Indoor heat exchanger temperature sensor shorted |
| E:06 | Outdoor heat exchanger temperature sensor open |
| E:07 | Outdoor heat exchanger temperature sensor shorted |
| E:08 | Power source connection error |
| E:09 | Float switch operated |
| E:0A | Outdoor temperature sensor open |
| E:0b | Outdoor temperature sensor shorted |
| E:0C | Discharge pipe temperature sensor open |
| E:0d | Discharge pipe temperature sensor shorted |
| 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 |

### 2. OUTDOOR UNIT

When the outdoor temperature drops, the outdoor unit's fans may switch to low speed.

**ERROR : HEAT &COOL MODEL (REVERSE CYCLE) ONLY**

The LED lamps operate as follows (Table 8) according to the error contents.

**Table 8**

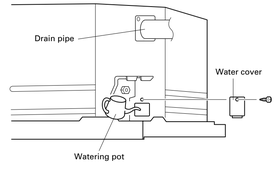
| Error display | | |
|---|---|---|
| LED1 | LED2 | Error contents |
| 0.1 sec. ON OFF — Quick flash continued | 0.1 sec. ON OFF — Quick flash continued | Model abnormal or EEPROM abnormal |
| 0.5 sec. 2 sec. ON OFF — 1 quick flash repeated | ON OFF — Lighting continued | Power source connection error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

### 3. CHECKING DRAINAGE

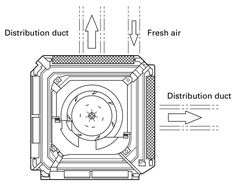
To check the drain, remove the water cover and fill with 2 to 3 ℓ of water as shown in Fig. 53.
The drain pump operates when operating in the cooling mode.

**Fig. 53**




## 12 OPENING THE DUCT CONNECTION HOLE

**Fig. 54**



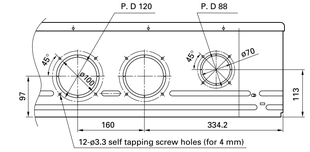

**⚠ CAUTION**

① **When performing hole opening work, be careful not to damage the drain pan.**
② **When connecting the distribution duct, to make the air flow easily, block the outlet port with the blower cover insulation as shown by the hatched lines in Fig. 54. For the blocking direction, refer to Fig. 39.**

### 1. DIMENSION

Screw position and connection hole which are fresh air duct and distribution duct.

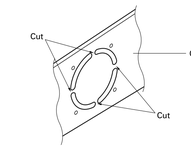
**Fig. 55** Unit: mm




### 2. DISTRIBUTION DUCT AND FRESH AIR DUCT HOLE PROCESSING

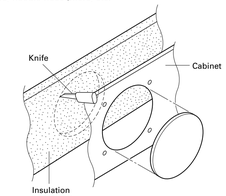
Use the distribution duct hole and fresh air duct hole by removing the insulation material as shown below.

**Fig. 56**




● Cut off the part (Cabinet) indicated by the arrow in the Fig. 56 with nippers, needle nose pliers, etc.

**Fig. 57**




● Open the holes and cut the insulation with a knife.
＊ Be careful not to damage the internal parts.
＊ Be careful not to cut yourself on the cutout in the metal plate.
＊ Please remove the insulation (inner box) left over after cutting.
● Connect the distribution duct.
＊ When mounting the duct, block the gap so that there is no cold air leakage.
＊ Insulate the duct and cut connection.

**⚠ CAUTION**

**The air conditioner cannot take in fresh air by itself. When connecting a fresh air duct, always use a duct fan.**