

SPLIT TYPE ROOM AIR CONDITIONER INSTALLATION INSTRUCTION SHEET

(PART NO. 9360500038)

For authorized service personnel only.

WARNING

- (1) For the room 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 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) Never cut the power cord, lengthen or shorten the cord, or change the plug.
- (5) Do not damage the power cord.
- (6) Plug in the power cord plug firmly. If the receptacle is loose, repair it before using the room air conditioner.
- (7) Do not turn on the power until all installation work is complete.

• Be careful not to scratch the room 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 room air conditioner is serviced or moved.

SELECTING THE MOUNTING POSITION

WARNING

- (1) 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.

CAUTION

- (1) Do not install where there is the danger of combustible gas leakage.
- (2) Do not install near heat sources.
- (3) If children under 10 years old may approach the unit, take preventive measures so that they cannot reach the unit.

Describe the mounting position with the customer as follows:

1. INDOOR UNIT

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.

CAUTION

- (1) If possible, do not install the unit where it will be exposed to direct sunlight. If necessary, install a blind that does not interfere with the piping and connection cords.
- (2) Do not install the unit where a strong wind blows or where it is likely to blow.
- (3) Do not install the unit where people pass.
- (4) Do not install the unit where it will be exposed to direct sunlight.
- (5) Do not install the unit where it will be exposed to direct sunlight.
- (6) Do not install the unit where the pipe can be easily installed.
- (7) Make sure that the piping and connection cords are not shown in Fig. 1. Also install the unit where the filter can be removed.

Fig. 1

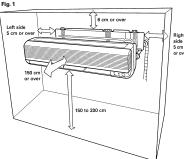
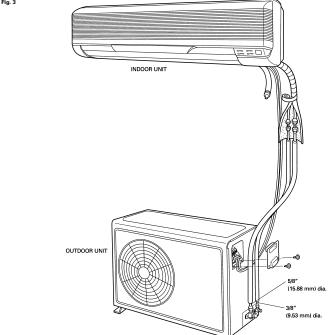


Fig. 2



STANDARD ACCESSORIES

The following installation accessories are supplied. Use them as required.

INDOOR UNIT ACCESSORIES

Name and Shape	Qty	Use
Wall hook bracket	1	For indoor unit installation
Remote control unit	1	Use for air conditioner operation
Battery (optional)	4	For remote control unit
Remote control unit holder	1	Use as remote control unit holder
Tapping screw (big)	12	For wall hook bracket installation
Tapping screw (small)	3	For remote control unit holder installation

OUTDOOR UNIT ACCESSORIES

Name	Qty	Use
Hosepin wrench	1	For air purge
Drain pipe	1	For outdoor unit drain
Flexible tube	1	For outdoor unit drain
Drain cap	2	For outdoor unit drain

ELECTRICAL REQUIREMENT

- Electric wire size and fuse capacity

Table 1		
Power cord (mm ²)	MAX	3.0
	MIN	3.0
Connection cord (mm ²)	MAX	1.5
	MIN	1.0
Fuse capacity (A)	MAX	10

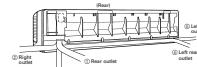
- Fuse size (ampere) or equivalent as the connection cord.
- Insert the disconnect device with a contact gap of at least 3 mm nearby the units. (Both indoor and outdoor unit)

INSTALLATION PROCEDURE

1. INDOOR UNIT INSTALLATION

The piping can be connected in the four directions shown by (1), (2), (3), and (4) in Fig. 4. When the piping is connected in direction (2) or (3), along the piping groove in the side of the under cover with a tapping hole, the piping is tilted. In this case, when the piping is tilted, cut the thin wall at the front bottom of the under cover.

Fig. 4



1. INSTALLING THE WALL HOOK BRACKET

Removing the wall hook bracket

- ① Remove the wall hook bracket in the following order: (1) Hook, (2) Under cover A, (3) Under cover B, (4) Tap the side of under cover A by pulling it forward (in new direction in Fig. 5).
- ② While pulling the side of under cover A, turn the bracket to under cover A (Fig. 6).
- ③ While pulling the right side of under cover A forward (releasing the inside stopper), slide under cover A to the left and remove the wall hook bracket (Fig. 7).
- ④ Next, remove under cover A by pulling the left side forward (releasing the inside stopper).
- ⑤ Remove the four tapping screws holding the wall hook bracket (Fig. 7).

Fig. 5



2. CUTTING THE HOLE IN THE WALL FOR THE CONNECTING PIPING

WARNING

- If the wall pipe is too hard, the cord interconnecting the indoor and outdoor units may break metal and cause electric leakage.

Fig. 8



- When cutting the wall hole at the inside of the installation frame, cut the hole at a distance of 10 mm from the inner edge. When cutting the wall hole at the outside of the installation frame, cut the hole at least 10 mm below the base.

Fig. 9



- When cutting the center of the wall hole, if it is enlarged, water leakage will occur.

Fig. 10



- When extending the drain hole at the indoor unit, install the access panel insulation.

Fig. 11



- Place the indoor unit drain hole behind the piping.

Fig. 12



- Place the indoor unit drain hole behind the piping.

Fig. 13



- Place the indoor unit drain hole behind the piping.

Fig. 14



- Place the indoor unit drain hole behind the piping.

Fig. 15



- Place the indoor unit drain hole behind the piping.

Fig. 16



- Place the indoor unit drain hole behind the piping.

Fig. 17

- Place the indoor unit drain hole behind the piping.

Fig. 18

- Place the indoor unit drain hole behind the piping.

Fig. 19

- Place the indoor unit drain hole behind the piping.

Fig. 20

- Place the indoor unit drain hole behind the piping.

Fig. 21

- Place the indoor unit drain hole behind the piping.

Fig. 22

- Place the indoor unit drain hole behind the piping.

Fig. 23

- Place the indoor unit drain hole behind the piping.

Fig. 24

- Place the indoor unit drain hole behind the piping.

Fig. 25

- Place the indoor unit drain hole behind the piping.

Fig. 26

- Place the indoor unit drain hole behind the piping.

Fig. 27

- Place the indoor unit drain hole behind the piping.

Fig. 28

- Place the indoor unit drain hole behind the piping.

Fig. 29

- Place the indoor unit drain hole behind the piping.

Fig. 30

- Place the indoor unit drain hole behind the piping.

Fig. 31

- Place the indoor unit drain hole behind the piping.

Fig. 32

- Place the indoor unit drain hole behind the piping.

Fig. 33

- Place the indoor unit drain hole behind the piping.

Fig. 34

- Place the indoor unit drain hole behind the piping.

Fig. 35

- Place the indoor unit drain hole behind the piping.

Fig. 36

- Place the indoor unit drain hole behind the piping.

Fig. 37

- Place the indoor unit drain hole behind the piping.

Fig. 38

- Place the indoor unit drain hole behind the piping.

Fig. 39

- Place the indoor unit drain hole behind the piping.

Fig. 40

- Place the indoor unit drain hole behind the piping.

Fig. 41

- Place the indoor unit drain hole behind the piping.

Fig. 42

- Place the indoor unit drain hole behind the piping.

Fig. 43

- Place the indoor unit drain hole behind the piping.

Fig. 44

- Place the indoor unit drain hole behind the piping.

Fig. 45

- Place the indoor unit drain hole behind the piping.

Fig. 46

- Place the indoor unit drain hole behind the piping.

Fig. 47

- Place the indoor unit drain hole behind the piping.

Fig. 48

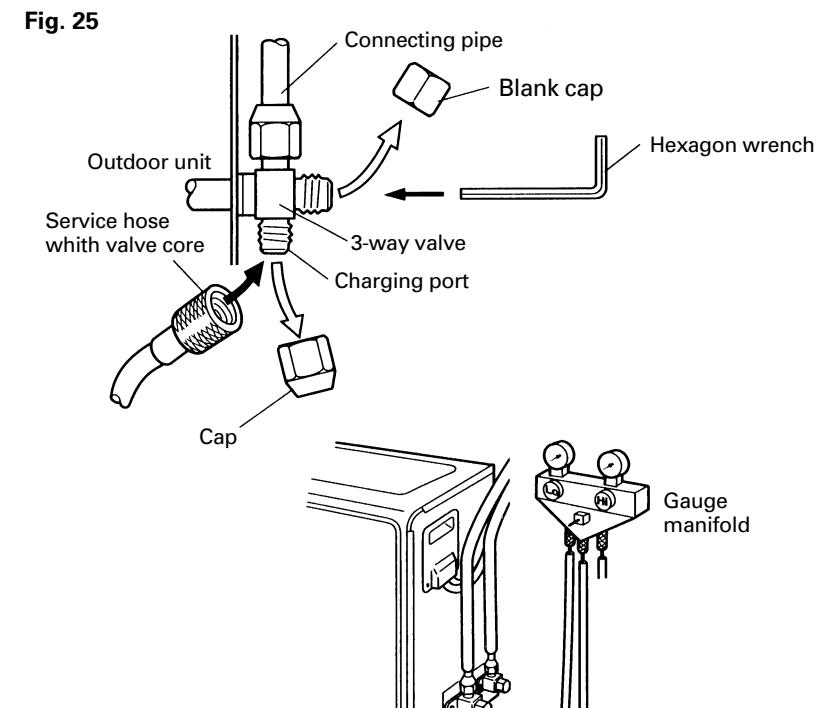
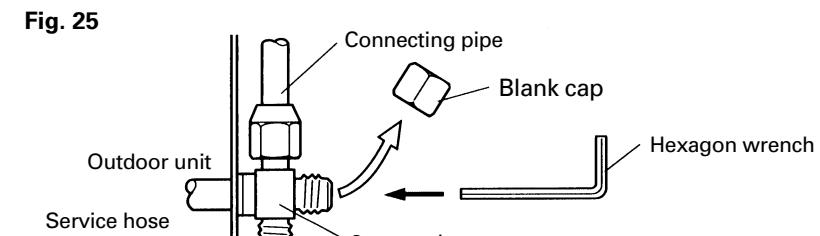
- Place the indoor unit drain hole behind the piping.

Fig. 49

- Place the indoor unit drain hole behind the piping.

Fig. 50

- 1. 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 1.5 mmHg.
 - Disconnect the service hoses and fit the cap to the charging valve (Tightening torque : 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: 70 to 90 kgf·cm, 3-way valve: 100 to 120 kgf·cm).
 - Tighten the blank caps of the 2-way valve and 3-way valve to the specified torque (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	16 ft (7.5 m)	33 ft (10 m)	49 ft (15 m)	66 ft (20 m)
Additional refrigerant Cooling model	None	1.8 oz (50 g)	5.3 oz (150 g)	8.8 oz (250 g)

Between 7.5 m and 20 m, when using a connection pipe other than that in the table, charge additional refrigerant with 0.71 oz (20 g) / 3.3 ft (1 m) (Cooling model) as the criteria.

6 GAS LEAKAGE INSPECTION

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

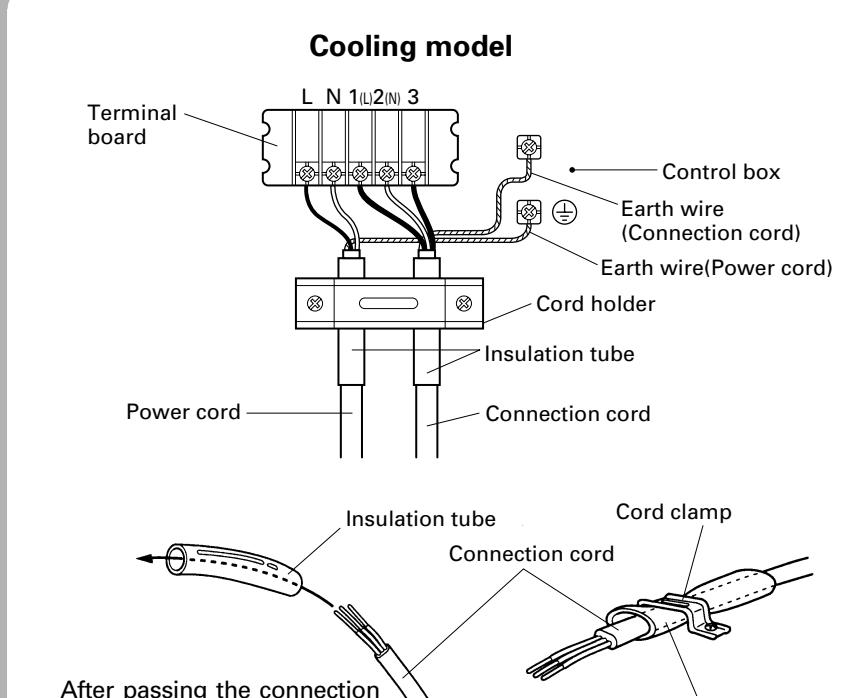
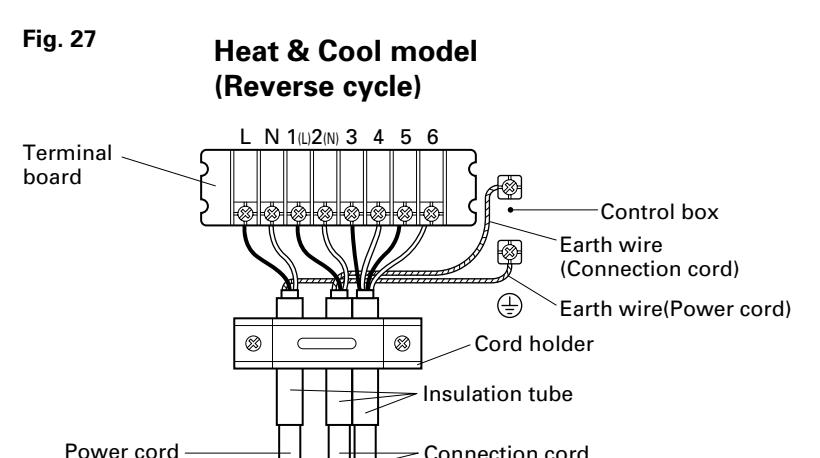
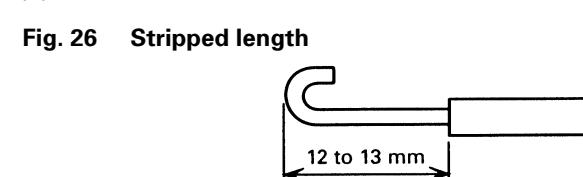
7 OUTDOOR UNIT WIRING

- WARNING**
- Before starting work, check that power is not being supplied to indoor unit and the outdoor unit.
 - Match the terminal block numbers and connection cord colors with those of the indoor unit side. Erroneous wiring may cause burning of the electric parts.
 - Connect the connection cords firmly to the terminal block. Imperfect installation may cause a fire.
 - Always fasten the outside covering of the connection cord with cord clamps. (If the insulator is clamped, electric leakage may occur.)
 - Always connect the ground wire.

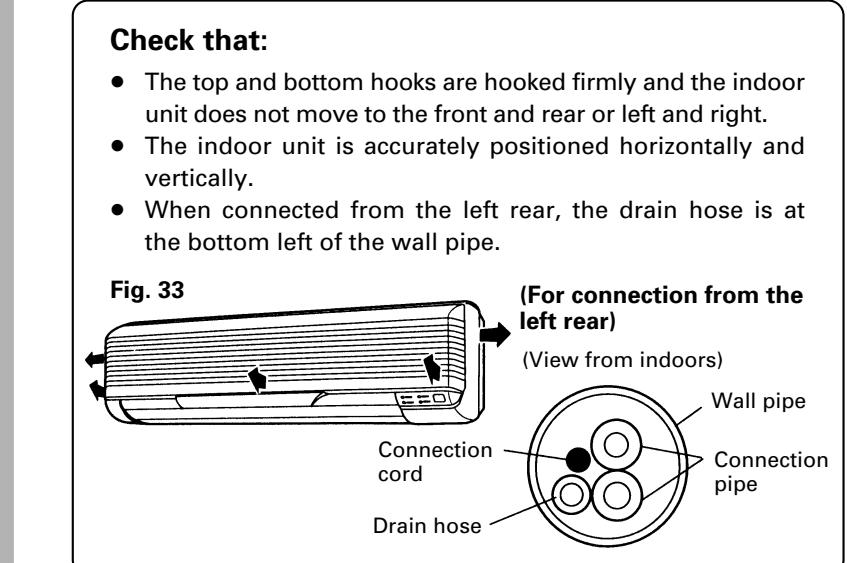
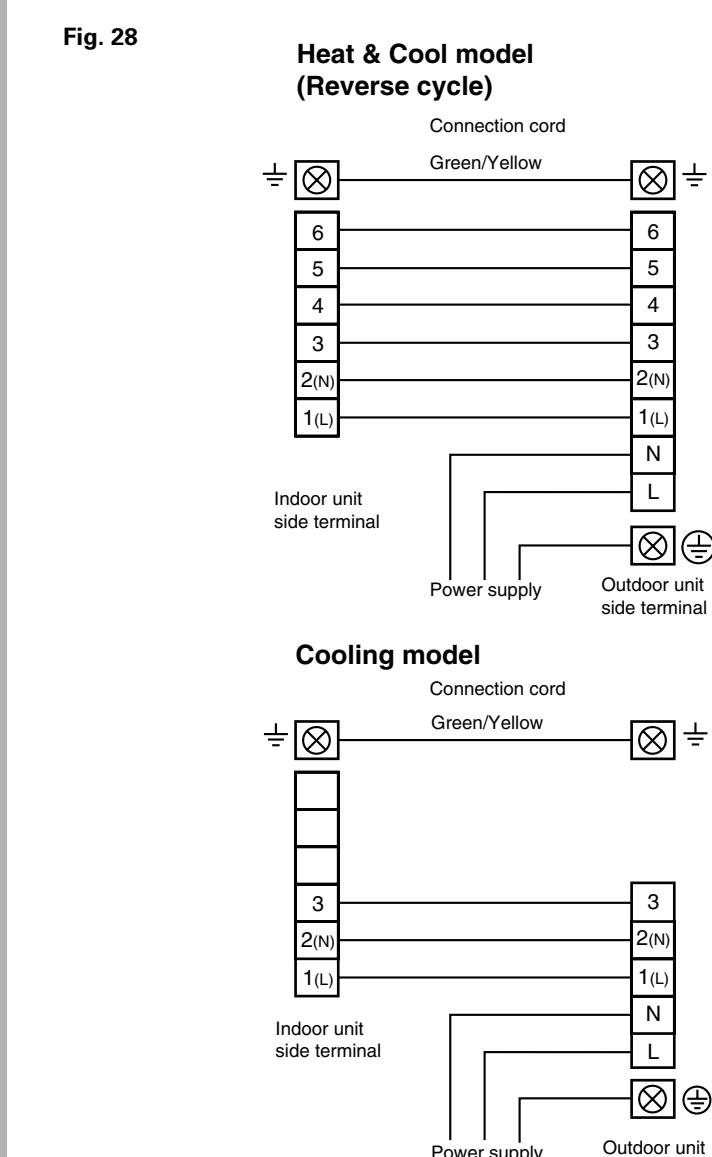
CAUTION

- The power cord is not supplied with the outdoor unit. Use 2.5 mm^2 to 3.5 mm^2 H07RN-F or equivalent as the connection cord.
- Use VW-1, 12 mm diameter, 0.5 to 1.0 mm thick, PVC tube as the insulation tube.

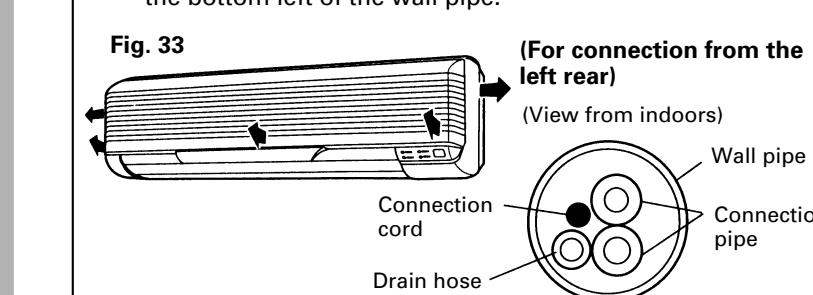
- Remove the outdoor unit terminal cover.
- Process the end of the connection cords to the dimensions shown in Fig. 27 and bend the end of each cord as shown in Fig. 26.
- Connect the end of the connection cord fully into the terminal block and fasten with the screws.
- Fasten the sheath with a cord clamp.
- Install the terminal cover.



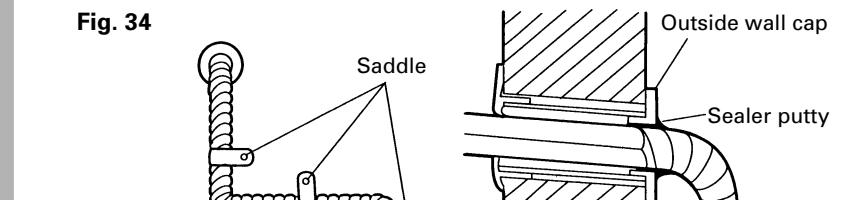
1. CONNECTION DIAGRAM



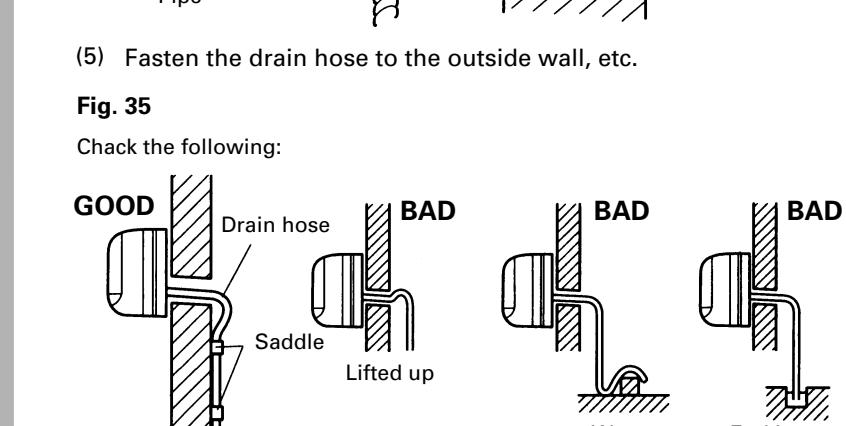
- Check that:**
- The top and bottom hooks are hooked firmly and the indoor unit does not move to the front and rear or left and right.
 - The indoor unit is accurately positioned horizontally and vertically.
 - When connected from the left rear, the drain hose is at the bottom left of the wall pipe.



- Fig. 33**
(For connection from the left rear)
(View from indoors)



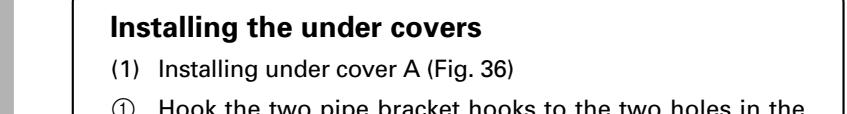
- Fig. 34**
(5) Fasten the drain hose to the outside wall, etc.



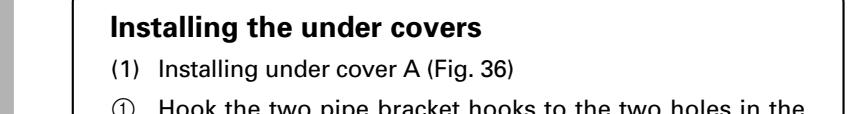
- Fig. 35**
Check the following:



- GOOD** Drain hose Saddle LIFTED UP BAD Wave End in water



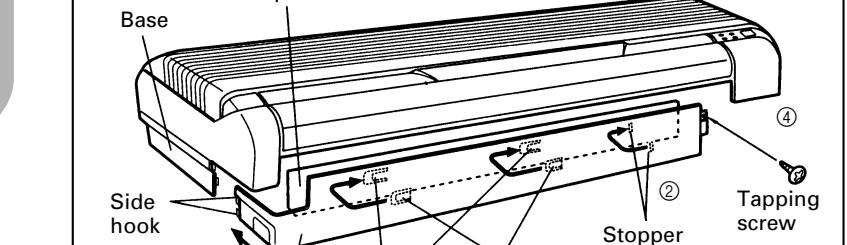
- BAD** Lifted up Wave End in water



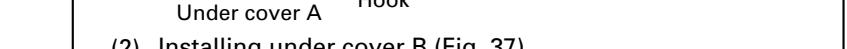
- BAD** Lifted up Wave End in water

Installing the under covers

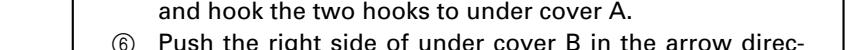
- (1) Installing under cover A (Fig. 36)**
- Hook the two pipe bracket hooks to the two holes in the back of under cover A.
 - While pulling the left side of under cover A forward about 1 cm (at this time, hole hook ① so that it does not come unhooked), slide under cover A to the right and hook the hook.
 - Push the left side of under cover A in the arrow direction and hook the two side hooks to the base.
 - Install under cover A to the pipe bracket with the tapping screw.



- Fig. 36** Pipe bracket



- Base** Side hook Hook Stopper Tapping screw



- Under cover A** Hole



- Fig. 37** Base Side hook



- Under cover A** Hook Under cover B



- Fig. 38** Connection cord



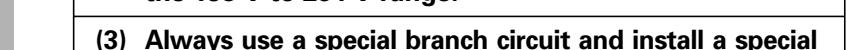
- Indoor unit pipe (heat insulation)** Vinyl tape



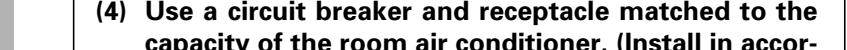
- Bind the pipes together so that there is no gap.**



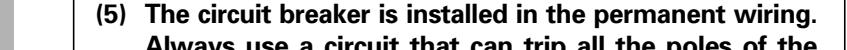
- For left and left rear piping, wrap the area which accommodates the rear piping housing section with cloth tape.**



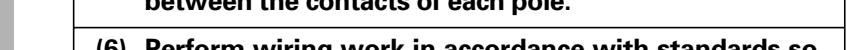
- Fig. 39** Connection pipe Indoor unit pipe Cloth tape Wrap with cloth tape



- For left and left rear piping, bind the connection cord to the top of the pipe with vinyl tape.**



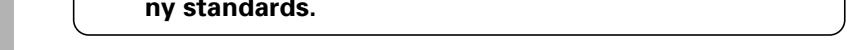
- Fig. 40** Connection cord Pipe Vinyl tape



- For left and left rear piping, bundle the piping and drain hose together by wrapping them with cloth tape over the range within which they fit into the rear piping housing section.**



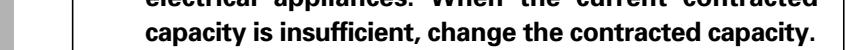
- Fig. 41** Pipe Wrap with cloth tape Drain hose Cloth tape Left piping Connection cord



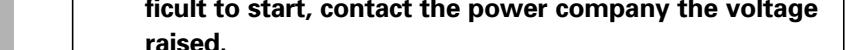
- Fig. 42** Terminal board Control box Earth wire (Connection cord) Cord holder Insulation tube Power cord Connection cord



- Fig. 43** L N 1 2 N 3 4 5 6



- Fig. 44** Indoor unit Printed circuit board



- Fig. 45** JMT1 JMT2 JMT3 AUTORESTART REMOCON 2 REMOCON 1



- Fig. 46** A B C D Remote control unit signal selector switch



- Fig. 47** ACL button

- Fig. 48** Jumper wire Remote control unit signal selector switch JM 2 JM 3 Connect Connect Disconnect Disconnect

- Fig. 49** A (Primary setting) B C D

- Fig. 50** Be sure that the top hole of the front panel is hooked securely to the hook of the base.

- Fig. 51** Front panel (Top hole)

- Fig. 52** Front panel (Top hole)

- Fig. 53** Front panel (Top hole)

- Fig. 54** Front panel (Top hole)

- Fig. 55** Front panel (Top hole)

- Fig. 56** Front panel (Top hole)

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- Fig. 65** Front panel (Top hole)

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- Fig. 68** Front panel (Top hole)

- Fig. 69** Front panel (Top hole)

- Fig. 70** Front panel (Top hole)

- Fig. 71** Front panel (Top hole)

- Fig. 72** Front panel (Top hole)

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- Fig. 74** Front panel (Top hole)

- Fig. 75** Front panel (Top hole)