



# 5 ELECTRICAL 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 of the indoor unit and the outdoor unit. 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 the cord clamp. (If the insulator is chafed, electric leakage may occur.)
- Always connect the ground wire.

## HOW TO CONNECT WIRING TO THE TERMINALS

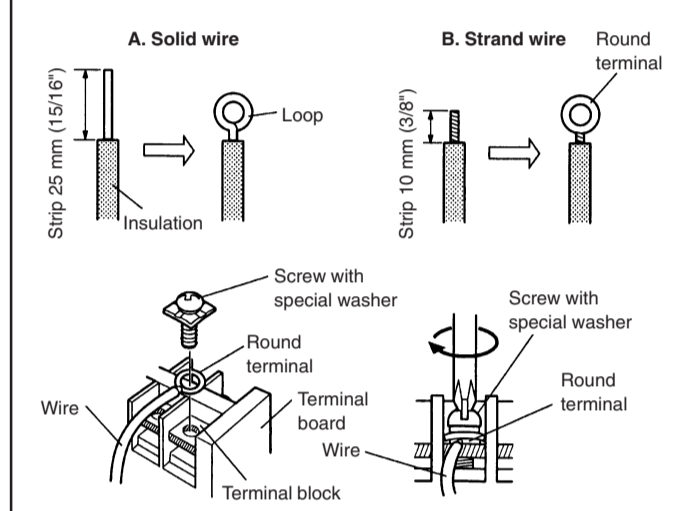
### A. For solid core wiring (or F-cable)

- 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.
- Using a screwdriver, remove the terminal screw(s) on the terminal board.
- Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
- 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

- 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.
- Using a screwdriver, remove the terminal screw(s) on the terminal board.
- Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
- Position the round terminal wire, and replace and tighten the terminal screw using a screwdriver.

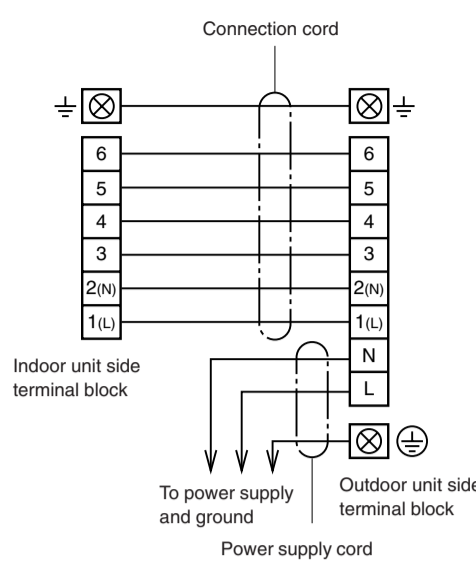
Fig. 29



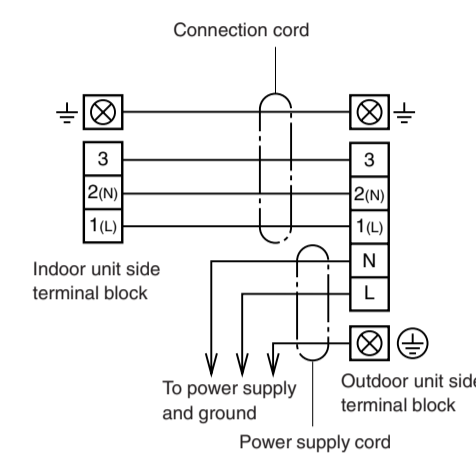
## 1. CONNECTION DIAGRAM

Fig. 30

### [Heat & Cool model (Reverse cycle)]



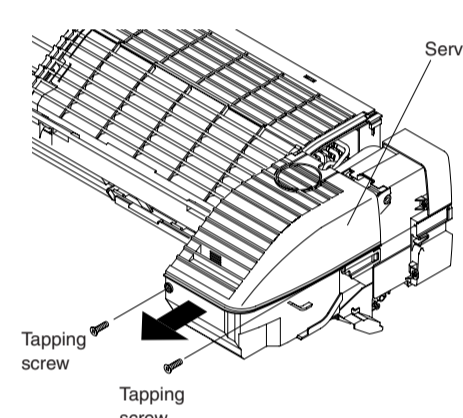
### [Cooling model]



## 2. INDOOR UNIT SIDE

- Remove the service cover (Fig. 31).
- Remove the cord clamp.
- Connect the end of the connection cord fully into the terminal block.
- Fasten the connection cord with a cord clamp.
- Install the service cover with the screw.

Fig. 31



## Mount to position high on the wall:

Use the table below to set the wall mounting position.

Fig. 32

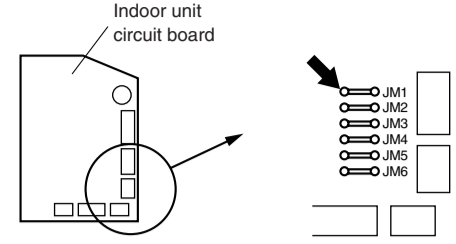
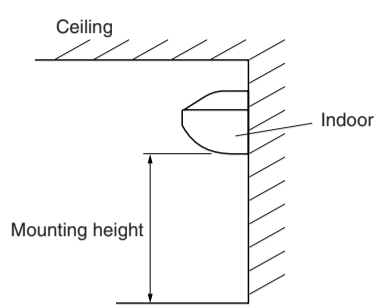


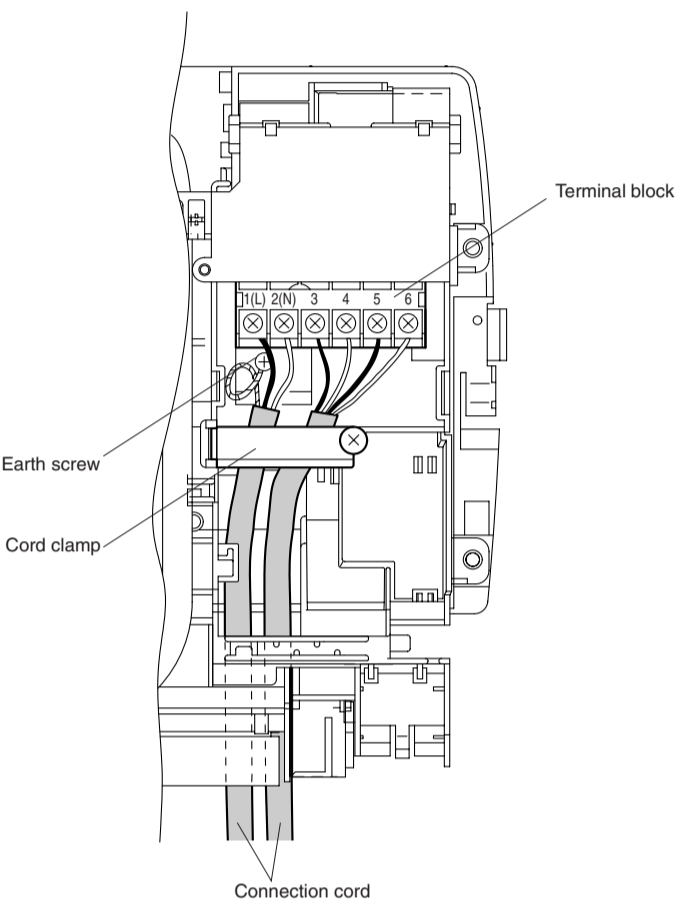
Fig. 33



Mounting height	Jumper wire (JM1)
1.5 m - 2.0 m	Connect (primary setting)
2.0 m - 2.5 m	Disconnect

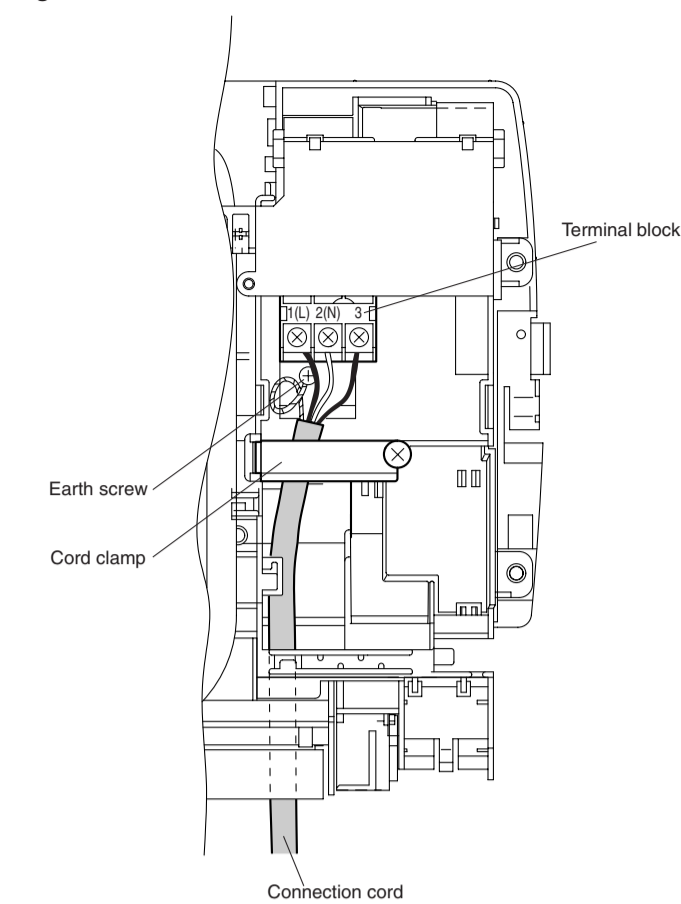
### [Heat & Cool model (Reverse cycle)]

Fig. 34



## [Cooling model]

Fig. 35



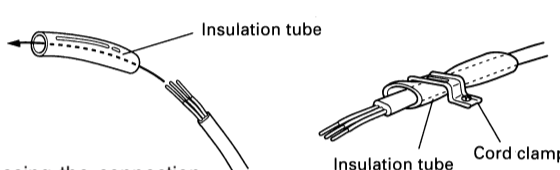
## 3. OUTDOOR UNIT SIDE

### CAUTION

Use VW-1, 12 mm diameter, 0.5 to 1.0 mm thick, connection PVC tube as the insulation tube.

- Process the end of the connection cords to the dimensions shown in Fig. 37.
- Connect the end of the connection cord fully into the terminal block and fasten with the screws.
- Fasten the sheath with a cord clamp. (Fig. 36)
- Install the terminal cover. (Fig. 38)

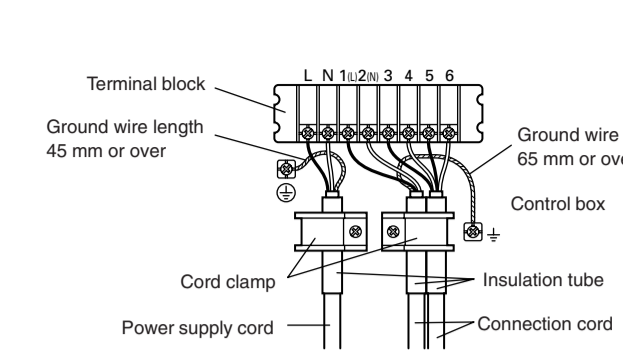
Fig. 36



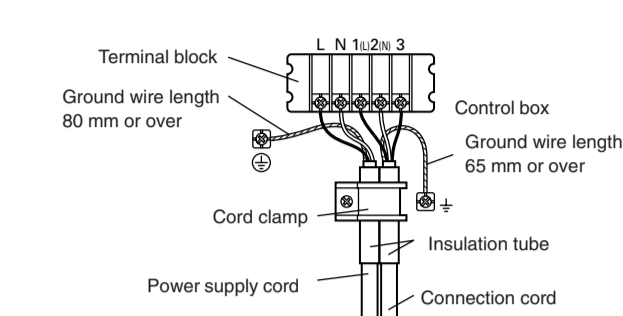
After passing the connection cord through the insulation tube, fasten it with the cord clamp.

Fig. 37

### [Heat & Cool model (Reverse cycle)]



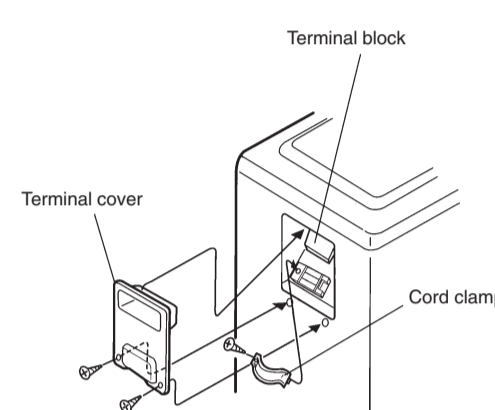
### [Cooling model]



### CAUTION

When routing the ground wires, leave slack as shown in the illustrations.

Fig. 38

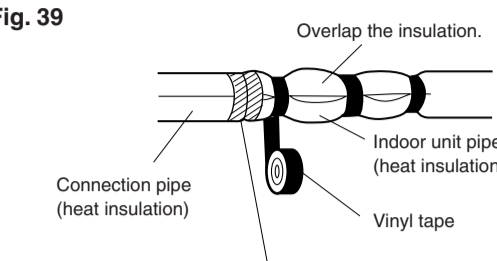


# 6 FINISHING

## 1. CONNECTION PIPE, CORD AND DRAIN HOSE

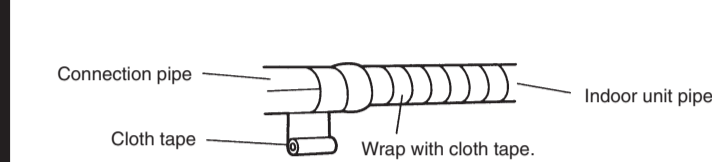
- Insulate between pipes.
  - For ① Rear, ② Right, and ③ Bottom piping, overlap the connection pipe heat insulation and indoor unit pipe heat insulation and bind them with vinyl tape so that there is no gap.
  - For ④ Left rear and ⑤ Left piping, but the connection pipe heat insulation and indoor unit pipe heat insulation together and bind them with vinyl tape so that there is no gap.

Fig. 39



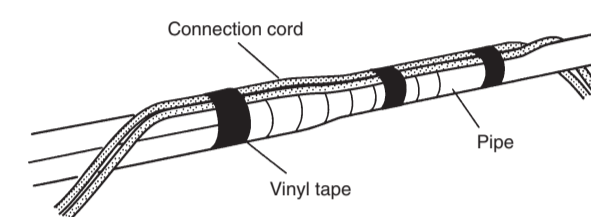
- For ② Left rear and ⑤ Left piping, wrap the area which accommodates the rear piping housing section with cloth tape.

Fig. 40



- For ② Left rear and ⑤ Left piping, bind the connection cord to the top of the pipe with vinyl tape.

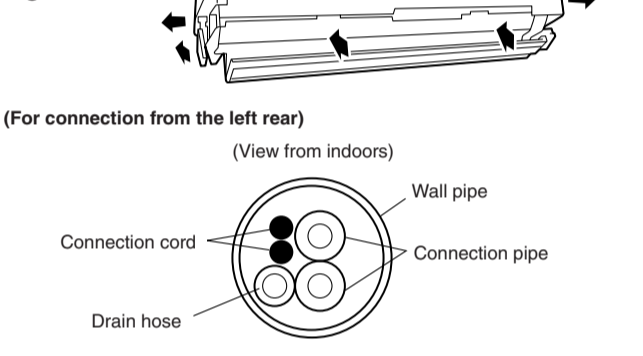
Fig. 41



### 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. 42



- Temporarily fasten the connection cord along the connection pipe with vinyl tape. (Wrap to about 1/3 the width of the tape from the bottom of the pipe so that water does not enter.)
- Fasten the connection pipe to the outside wall with a saddle, etc.
- Fill the gap between the outside wall pipe hole and the pipe with sealer so that rain water and wind cannot blow in.

Fig. 43

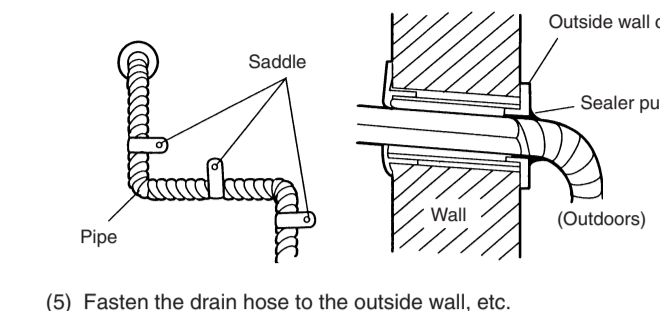
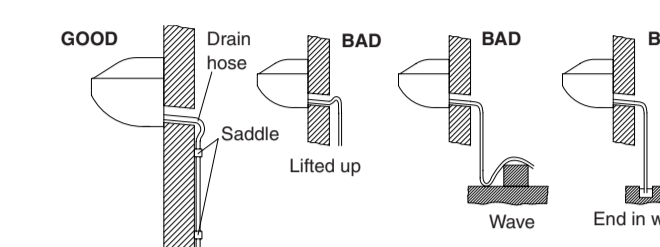


Fig. 44

Check the following:



## 2. INSTALLING FRONT COVER

- Carefully attach the front cover to the diffuser on the front of the body of the indoor unit.
- Secure the lower section of the front cover with tapping screws in two locations and close the screw cover.
- Push in the following hooks from the outside: front hook, 3 locations; side hook, 2 locations; under hook, 1 location.
- The last step is to push in the hook above the blower outlet.

Fig. 45

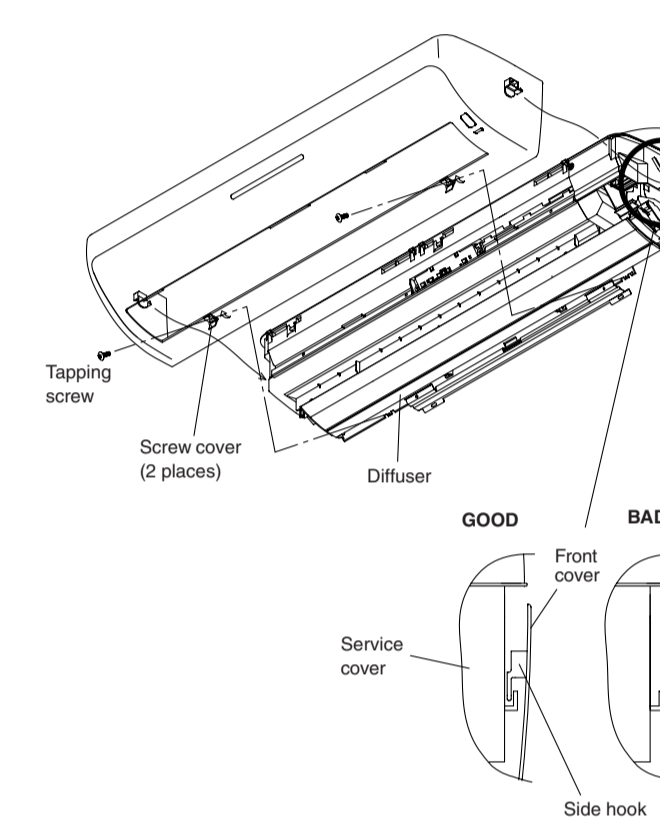
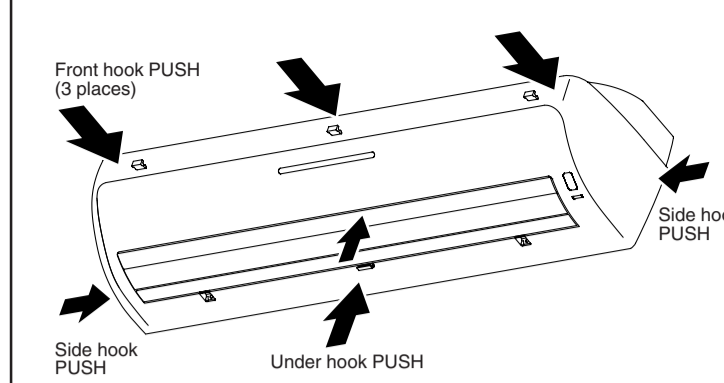


Fig. 46



# 7 POWER

### WARNING

- The rated voltage of this product is 230 V A.C. 50 Hz.
- Before turning on the verify that the voltage is within the 198 V to 264 V range.
- Always use a special branch circuit and install a special breaker to supply power to the room air conditioner.
- Use a circuit breaker matched to the capacity of the room air conditioner. (Install in accordance with standard)
- The circuit breaker is installed in the permanent wiring. Always use a circuit that can trip all the poles of the wiring and has an isolation distance of at least 3 mm between the contacts of each pole.
- Perform wiring work in accordance with standards so that the room air conditioner can be operated safely and positively.
- Install a leakage circuit breaker in accordance with the related laws and regulations and electric company standards.

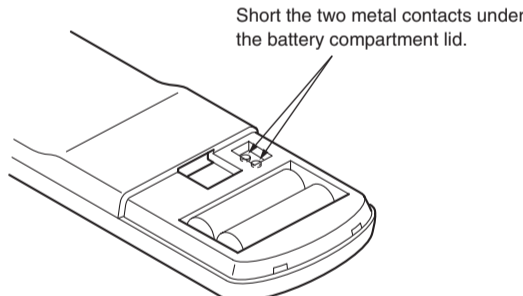
### CAUTION

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

# 8 TEST RUNNING

- Perform test operation and check items 1 and 2 below.
  - For the operation method, refer to the operating manual.
  - The outdoor unit may not run, depending on the room temperature.
- In this case, the 'TEST RUN' signal is received during air conditioner operation (use a metallic object to short the two metal contacts under the battery compartment lid and send the 'TEST RUN' signal from the remote control unit).

Fig. 47



Operation can be checked by lighting and flashing of the display section OPERATION and TIMER lamps.

### Test running

When the air conditioner is run by pressing the remote control unit test run button, the OPERATION and TIMER lamps flash slowly at the same time.

### Error

The OPERATION, TIMER and SWING lamps operate as follows (Table 8) according to the error contents.

Table 8

Error contents	Error display		
	OPERATION (RED)	TIMER (YELLOW)	SWING (ORANGE)
Indoor unit circuit board error	○	○	—
Indoor unit room temperature sensor wire opened	2 times ●	○	—
Indoor unit room temperature sensor wire short circuited	2 times ●	○	—
Indoor unit piping sensor wire opened	3 times ●	○	○
Indoor unit piping sensor short circuited	3 times ●	○	○
Indoor unit fan error	6 times ●	○	—

## CHECK ITEMS

### (1) INDOOR UNIT

- Is operation of each button on the remote control unit normal?
- Does each lamp light normally?
- Do not air flow direction louvers operate normally?
- Is the drain normal?
- Is there any abnormal noise and vibration during operation?

### (2) OUTDOOR UNIT

- Is there any abnormal noise and vibration during operation?
- Will noise, wind, or drain water from the unit disturb the neighbors?
- Is there any gas leakage?

- Do not operate the air conditioner in the test running state for a long time.
- For the operation method, refer to the operating manual and perform operation check.

# 9 REMOTE CONTROL UNIT INSTALLATION

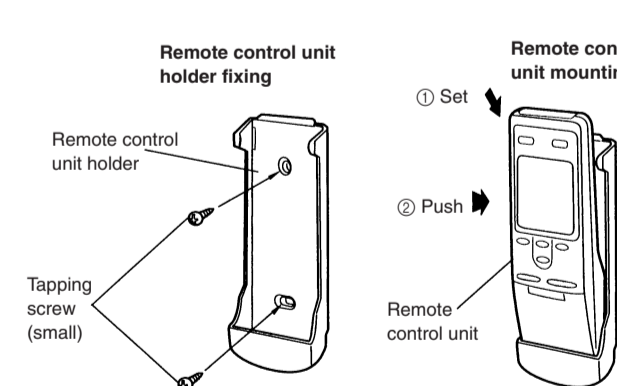
### CAUTION

- Check that the indoor unit correctly receives the signal from the remote control unit, then install the remote control unit holder.
- Select the remote control unit holder selection site by paying careful attention to the following:
  - Avoid places in direct sunlight.
  - Select a place that will not be affected by the heat from a stove, etc.

## 1. REMOTE CONTROL UNIT HOLDER INSTALLATION

- Install the remote control unit with a distance of 7 m between the remote control unit and the photocell as the criteria. However, when installing the remote control unit, check that it operates positively.
- Install the remote control unit holder to a wall, pillar, etc. with the tapping screw (Fig. 48).

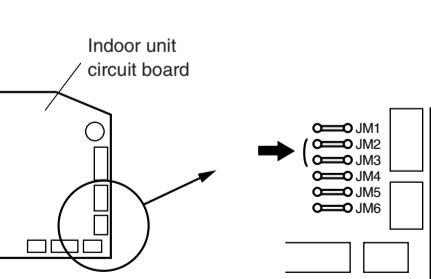
Fig. 48



## 2. SWITCHING REMOTE CONTROL UNIT SIGNAL CODES

### Air conditioner settings

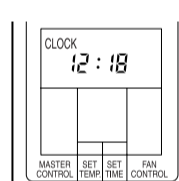
Fig. 49



## Remote control unit settings

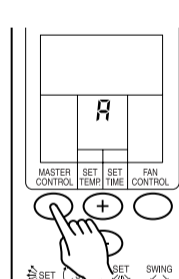
- Press the START/STOP button and display only the clock.

Fig. 50



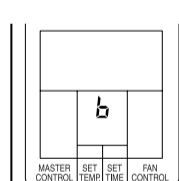
- Press the MASTER CONTROL button continuously for more than five seconds to display the current signal code.

Fig. 51



- Change the signal code with the <math>R</math> button (R-b-c-d).

Fig. 52



- Press the MASTER CONTROL button again to return to the clock display and change the signal code.

- Confirm the setting of the remote control unit signal code and the printed circuit board settings. If these are not confirmed, the remote control unit cannot be used to operate for the air conditioner.

Table 9

Jumper wire		Remote control unit signal code
JM2	JM3	
Connect	Connect	A (Primary setting)
Connect	Disconnect	B
Disconnect	Connect	C
Disconnect	Disconnect	D

# 10 CUSTOMER GUIDANCE

Explain the following to the customer in accordance with the operating manual:

- Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
- Air filter removal and cleaning, and how to use the air louvers.
- Give the operating manual and installation instruction sheet to the customer.
- If the signal code is changed, explain to the customer how it changed (the system returns to signal code A when the batteries in the remote control unit are replaced).