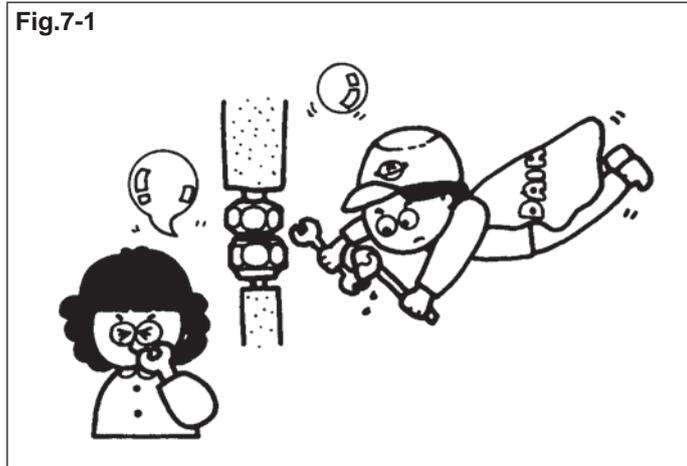


Chapter 7 Installation

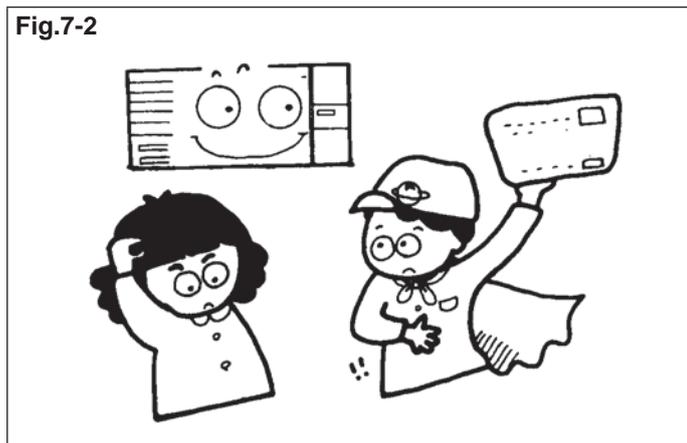
7.1 Troubles related with the installation work

No matter how good the air conditioner is, if it is installed improperly, it cannot exhibit the utmost capacity. Wrong installation of the air conditioner may cause various troubles, which require service call as a result. The following five illustrations show typical troubles which are apt to occur caused by improper installation.

- (1) No or insufficient cooling
- Refrigerant leak



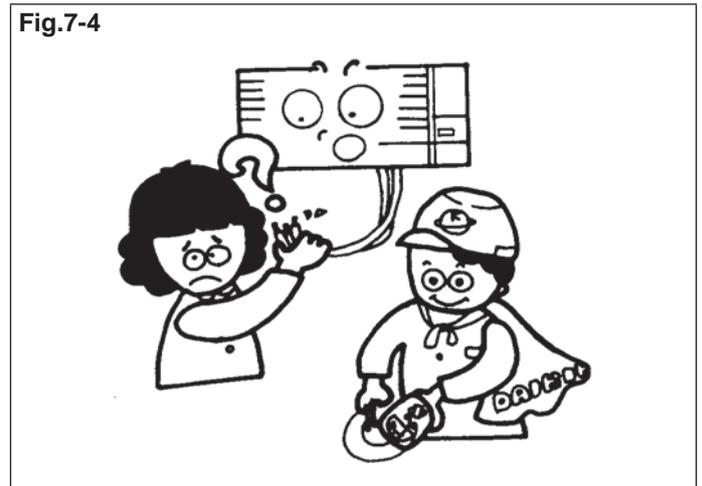
- (2) Improper operation
- Insufficient explanation how to operate the air conditioner to a customer.



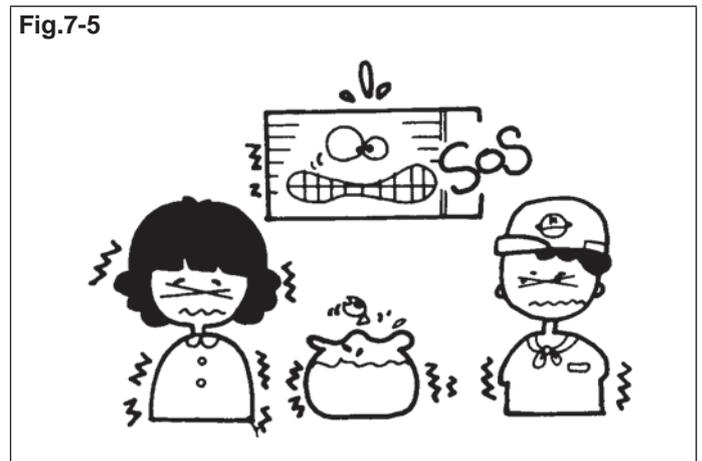
- (3) Water leak
- Drain pipe is improperly connected.
 - Piping is improperly insulated.



- (4) Inoperative
- Field wiring is improperly connected.
 - Voltage is wrong.

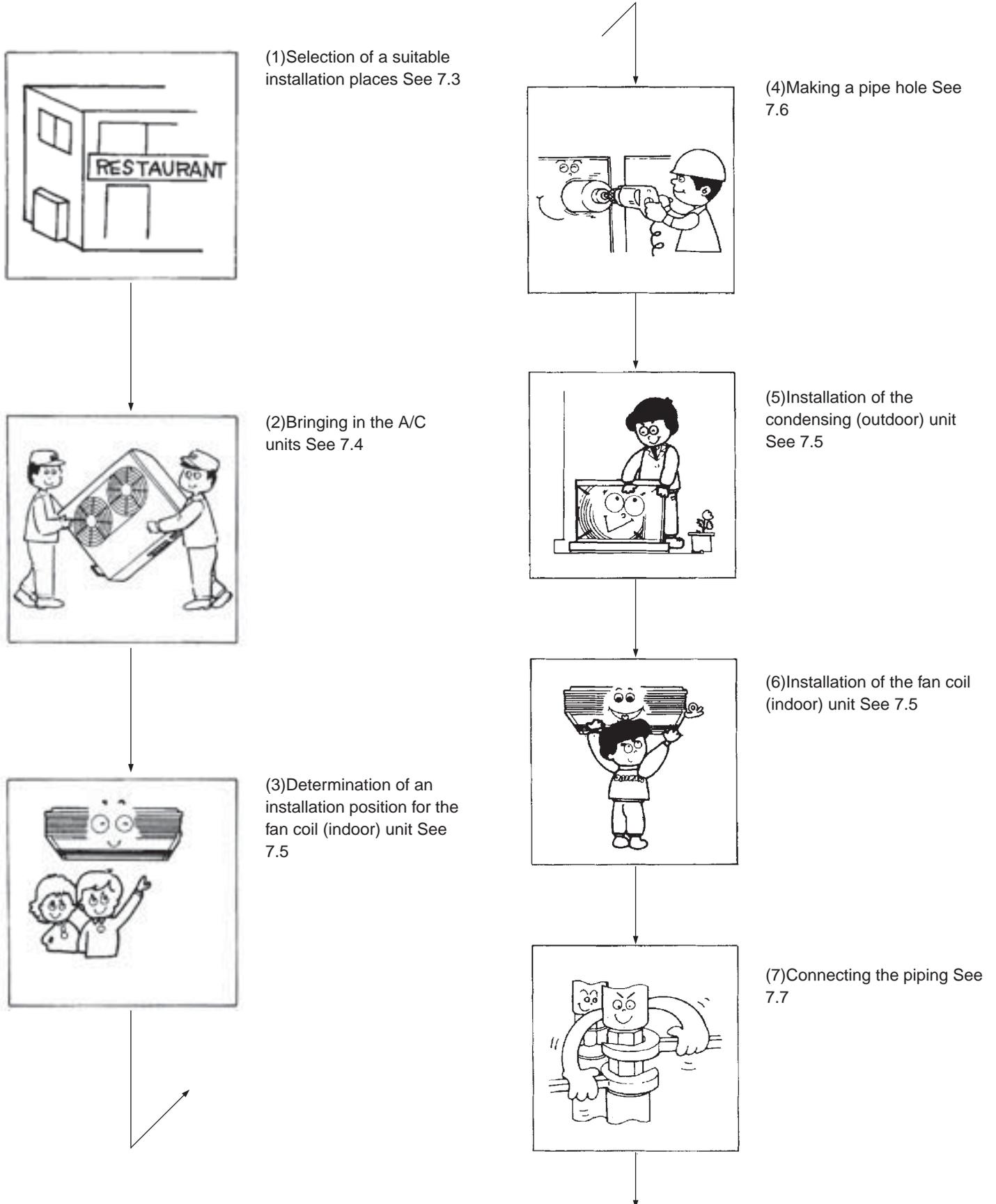


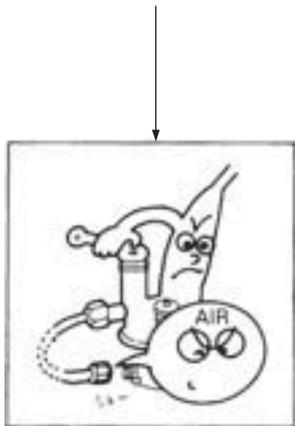
- (5) Noisy operation
- Both or either of fan coil (indoor) or condensing (outdoor) unit is improperly installed.
 - Field piping is improperly provided.



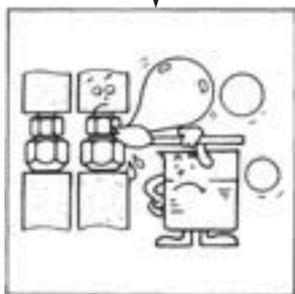
7.2 Procedure of installation

The followings are the order of the installation works. It is natural that the order of installation works differs with models, so read carefully the installation manual supplied with each product.

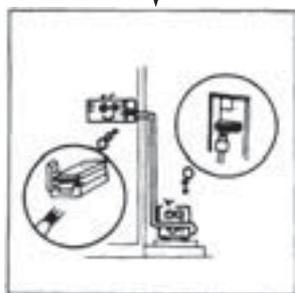




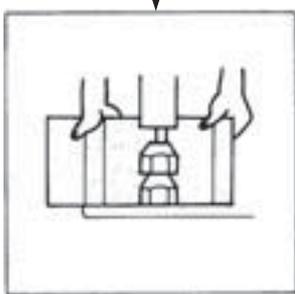
(8)Evacuation See 7.7.5



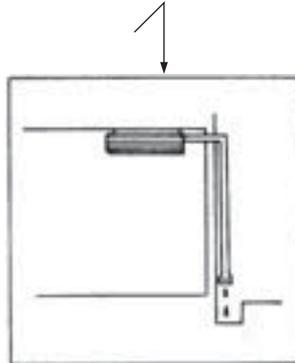
(9)Leak test See 7.7.4



(10)Field wiring. See 7.8



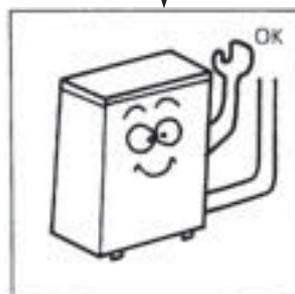
(11)Insulating See 7.9



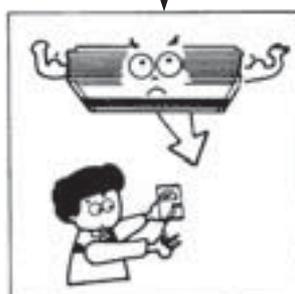
(12)Drain piping. See 7.10



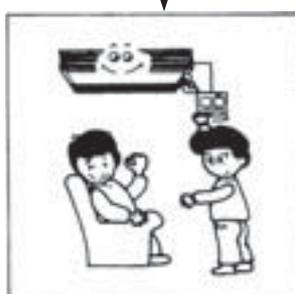
(13)Finishing work. See 7.11



(14)Final check. See 7.12



(15)Test operation See 7.13



(16)Commissioning Explain to your customer how to operate the product correctly in accordance with the operation manual.



7.3 Selection of suitable installation places

7.3.1 Condensing (Outdoor) units

Select a suitable place for condensing (outdoor) unit in consideration with the following conditions.

- (1) A place where the discharge air doesn't disturb the neighbors.

Fig.7-6



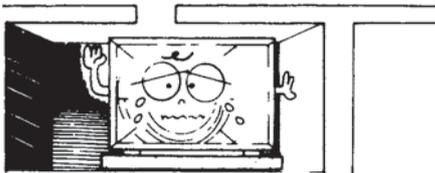
- (2) A place allowed by government regulations.

Fig.7-7



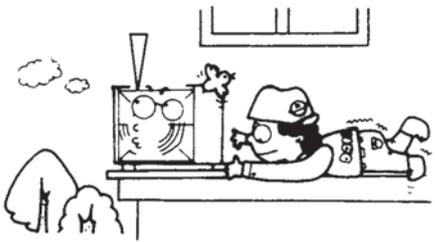
- (3) A place where there is no obstacle in the air ways in and out of the condensing (outdoor) unit.

Fig.7-8



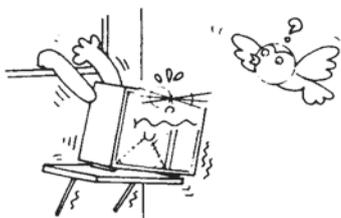
- (4) A place easily accessible for servicing.

Fig.7-9



- (5) A place where the condensing (outdoor) unit can be installed firmly.

Fig.7-10



7.3.2 Fan coil (Indoor) units

Select a suitable place for fan coil (indoor) unit in consideration with the following items.

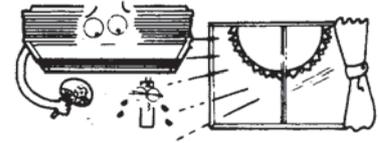
- (1) A place from where the fan coil (indoor) unit can be operated easily.

Fig.7-11



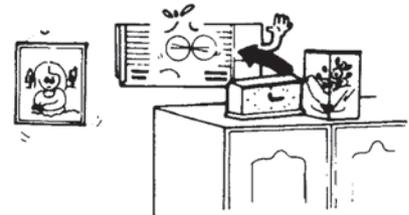
- (2) A place where the remote controller cannot be affected by direct sunlight.

Fig.7-12



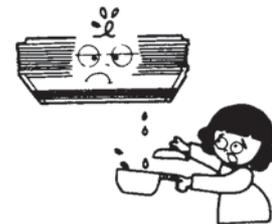
- (3) A place where the air discharged by the fan coil (indoor) unit is not drawn in again.

Fig.7-13



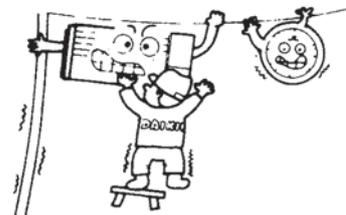
- (4) A place from where drain water can be extracted outdoors easily.

Fig.7-14



- (5) A place which is strong enough to support the unit.

Fig.7-15



7.4 Bringing in

The general informations for bringing in will be explained in this chapter. Before bringing in the product, determine the method of bringing in and then carefully bring it in, referring to the installation manual and technical manual.

- (1) Bring in the unit in the packing as near as possible to the site with care not to damage the unit inside.
- (2) The following are representative symbols of transportation, which indicate respective cautions required. So handle the product in consideration with the caution shown by the symbol on a packing.

Fig.7-16 Symbols of packing



Handle with care



Fragile



Wet prevention

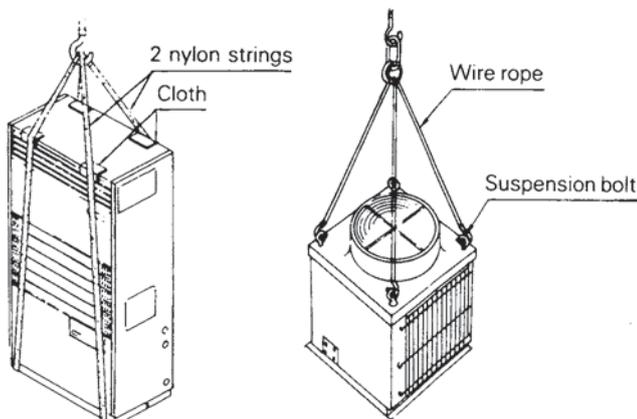


Upper side

(Do not lay the unit down sideways or upside down)

- (3) Do not lay down the unit, in which the compressor is mounted.
- (4) In case nylon strings (or wire ropes) are used for bringing in, hang the unit as shown in the Fig.7-17

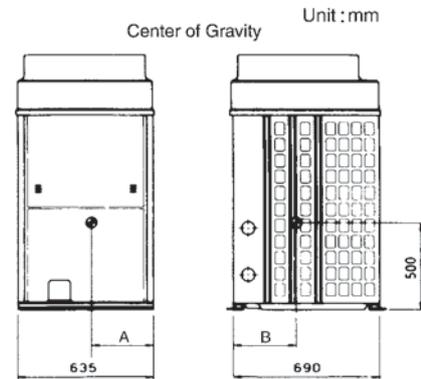
Fig.7-17 Example



- * Each product is so designed to be brought in safely and correctly so long as you follow the instructions shown in the respective installation and operation manuals or technical manual.

The data of " Center of Gravity " are available in the engineering data. If referring to the data when hanging the equipment, the safer work will be promised.

Fig.7-18



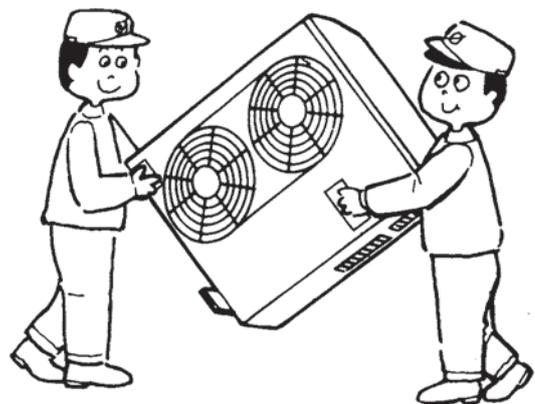
Model	A	B
RSX(Y)5K	315	325
RSX5KU	265	290
RSX6KU	265	290

- (5) Since the positions to be grasped are indicated to bring in a small product, do it in accordance with the instruction.

Example

- Use the handles on the right and left and bring in as shown in the figure. (The compressor is on the right side.)

Fig.7-19 Example



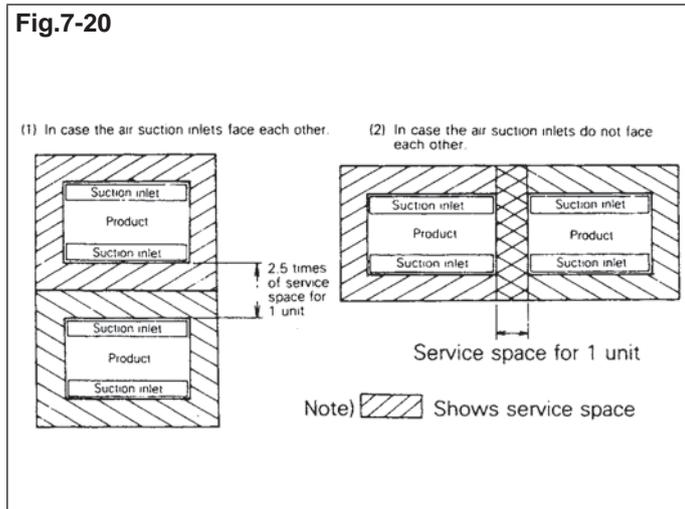
- (6) When unpacking, check that the accessories are correctly encased and then store them carefully so as not to lose any of them.

7.5 Cautions for installation

Before installing the unit actually at the predesigned position, make sure to leave the service space indicated on the respective installation and technical manuals around the unit, and at the same time, examine various surrounding conditions.

7.5.1 Service space

- In general, space for installation works is over 600mm and space for service works is over 1200mm. With regard to the details, see the technical manual.
- In case two air cooled condensing units are installed in parallel.
 Minimum service space is shown below.
 However, the minimum service space differs with models, so follow the respective installation or technical manual as for the details.

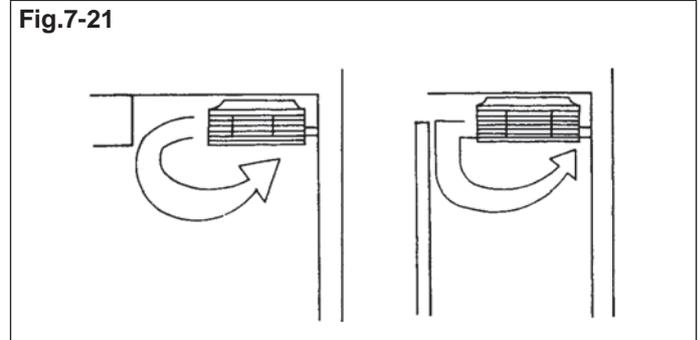


7.5.2 Installation of units

- Consider air distribution of a room based on structure of a room and arrangement of occupants and furniture.
- Install the unit in such a place where wall or obstacles do not interrupt the air ways in and out of the unit. (If the air way is disturbed, predesigned cooling efficiency is not obtainable, and furthermore dew forms on the casing, which may be resulted in water leakage.)
- Avoid installing the unit in such a place which is near the door or kitchen so as not to draw unnecessary volume of air or stale air.
- In case the unit is mounted in a wall, carefully install it not to transmit operation vibration to the wall. Leave a sufficient space for providing after-sales service.

Examples of bad installation

If distributed air is short-circuited, cooling or heating capacity will be greatly reduced.



7.6 Making a pipe hole

Make a hole in the wall. In case of room air conditioners, suitable hole diameter is 70~80mm.

The location of a hole should be lower than the drain outlet so that drain water can be smoothly extracted outside. In addition the hole should be inclined downwards to the outdoor as shown in the figure below.

