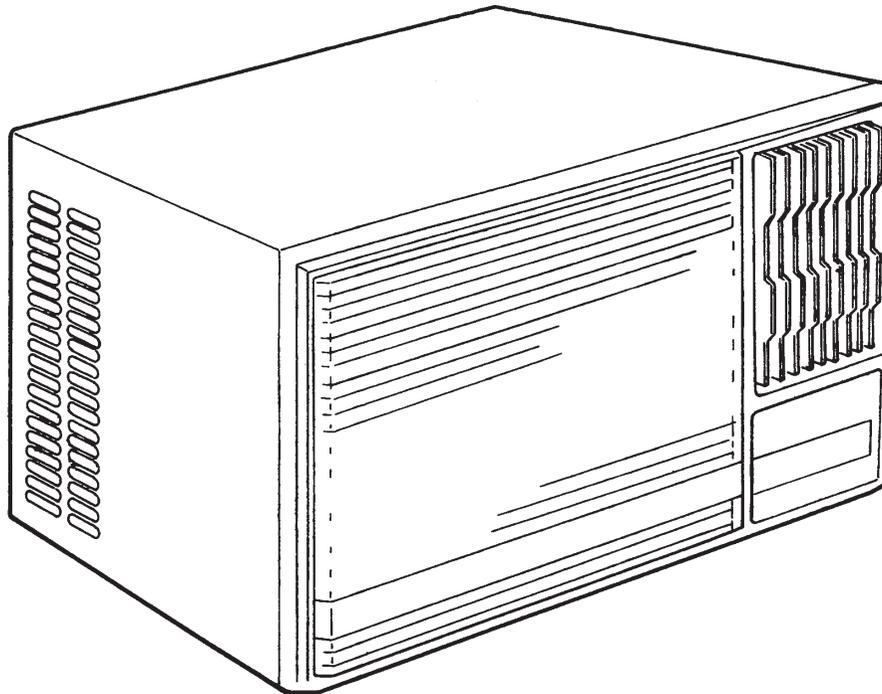


# FUJITSU

## OPERATING M

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OPERATING MANUAL



ROOM AIR CONDITIONER

English

AX SERIES

FUJITSU GENERAL LIMITED

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## **POWER SUPPLY**

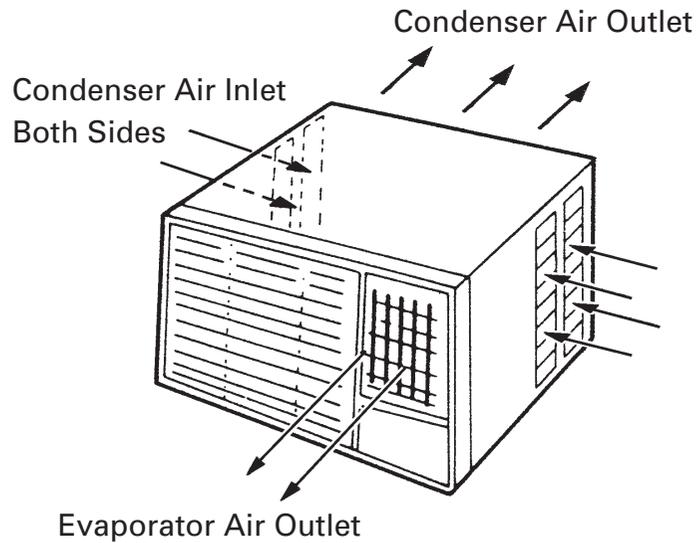
In order to enable efficient and trouble-free operation of your air conditioner, connect the power plug of your air conditioner through an exclusive circuit, having a time delay fuse, to proper power supply described on the rating mark plate.

**NOTE:** Please connect the “Brown” line of the power supply cord to the “Live” terminal of the power outlet, and the Earth line (Green and Yellow) to the Earth terminal. The remaining line should be connected to the Neutral terminal of the power outlet.

# INSTALLATION

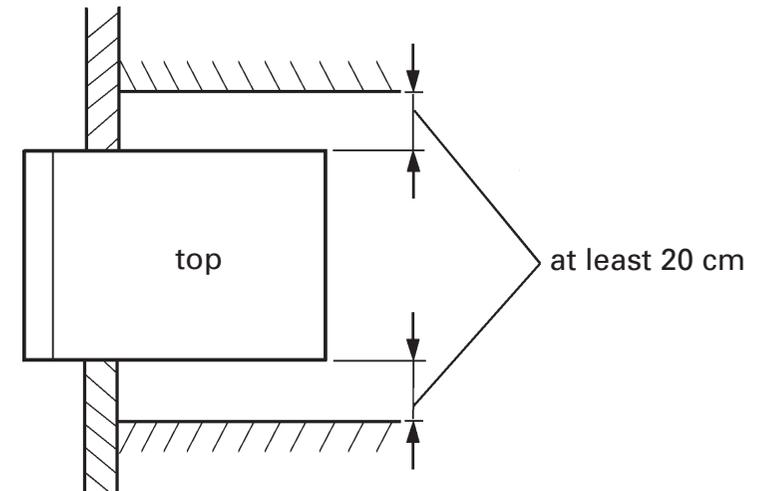
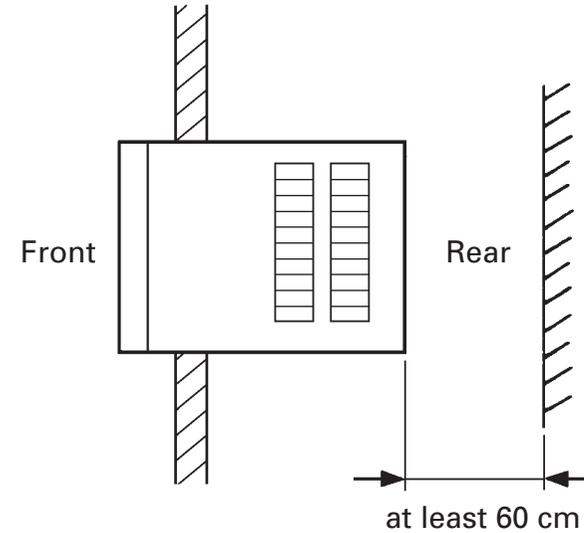
## 1. Installation location

- (1) Select a place where cool air emitted from the Air Conditioner circulates evenly, reaching every part of the room. Make sure that no obstacles both inside and outside the room prevent the air flow.

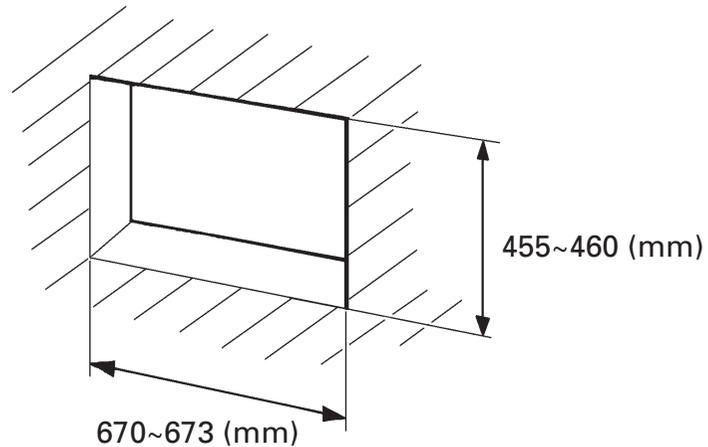


- (2) Where practicable, locate the air conditioner with the lower edge of the cabinet approximately 0.75 m (29.5") to 1.5 m (59") from the floor. This usually gives the optimum air circulation pattern within the room for cooling and heating.
- (3) Mounting must be strong enough to support the weight of the air conditioner with sufficient rigidity to prevent vibration being transmitted to windows and the like.

- (4) Where the rear and sides of the unit are unobstructed.



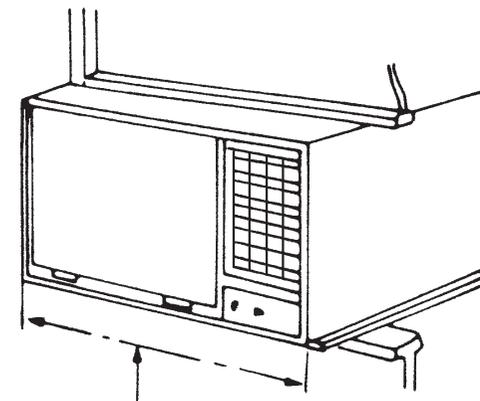
## 2. The Dimension of opening for mounting



## 3. Installation process

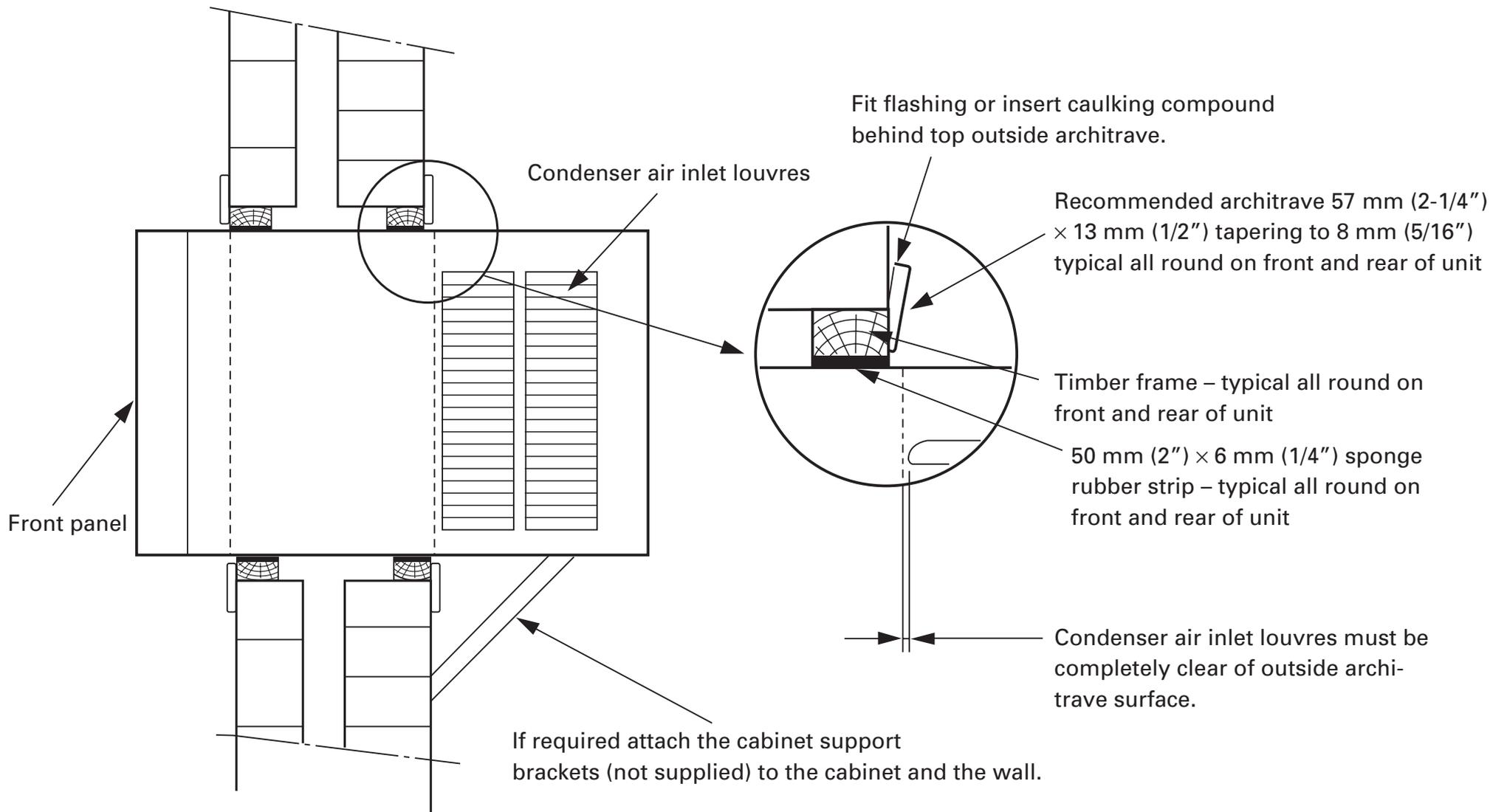
- (1) Remove the front panel.
- (2) Slide out the unit from the cabinet.
- (3) Fix the cabinet to the timber frame using nails or screws so that the condenser air inlet louvre is placed outside the wall. If required, support the cabinet in the wall with brackets and completely weather seal any gap between the cabinet and the wall.
- (4) Push the unit completely back into the cabinet.
- (5) Next, fit the attached urethane foam into the space between the cabinet and the bottom of the unit with a screw driver to seal the room inside from the outside.
- (6) Refit the front panel.

**NOTE:** When constructing a timber frame, arrange so that the outside rear of the air conditioner is between 0.5 ~ 1 cm lower than the front of the unit. This allows condensed water to drain off outside the room. If the inside of the air conditioner is lower, condensed water and rain may flow into the room.



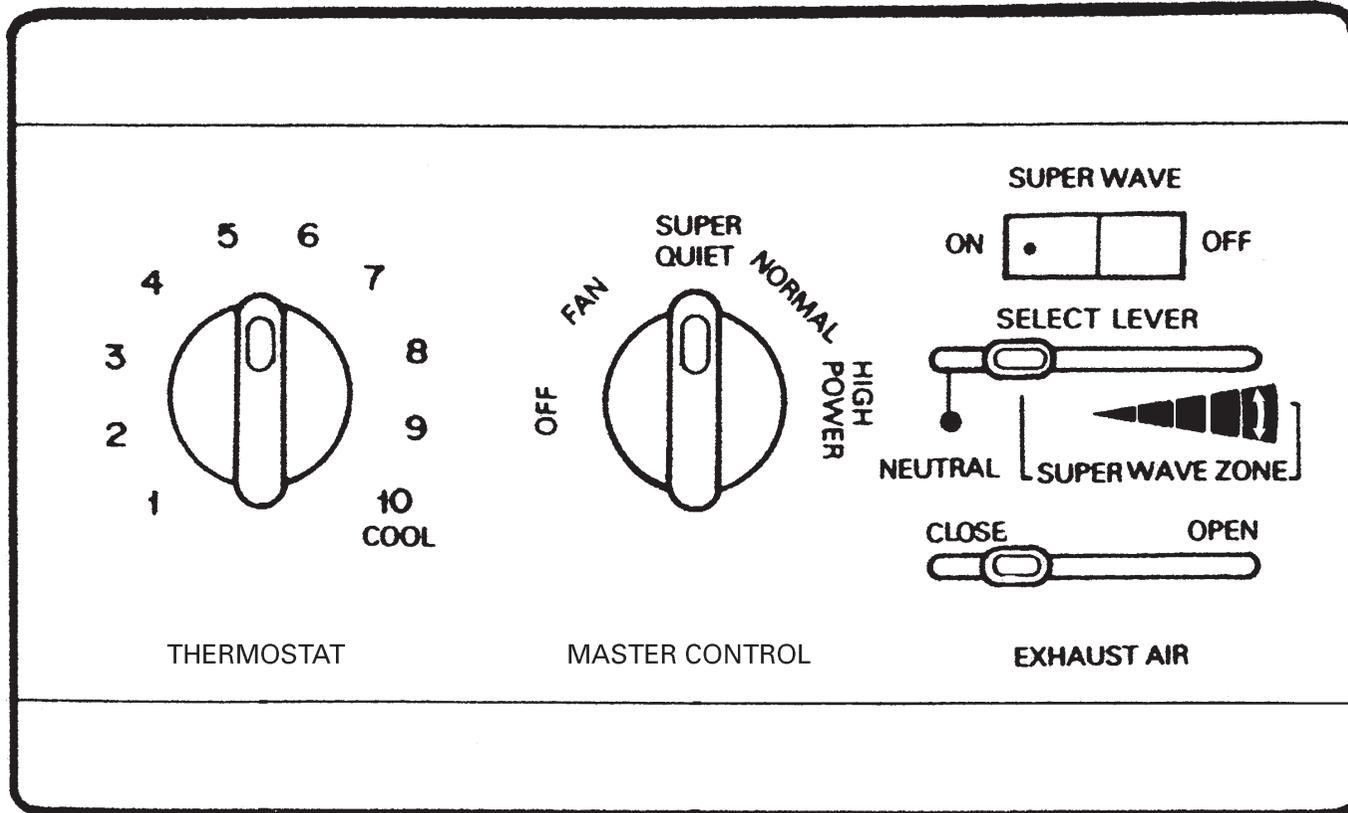
Fit the small urethane foam into the space between the cabinet and the unit.

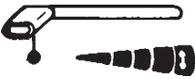
## 4. Typical installation



# OPERATION

## Control Panel



Controller	Position	Description
MASTER CONTROL	OFF	The air conditioner is switched off.
	FAN	Fan only is operating to provide filtered air without cooling effect.
	SUPER QUIET	Fan speed is low and cooling efficiency is intermediate with low noise level.
	NORMAL	A cooling effect is obtained by a quieter operation than "HIGH POWER".
	HIGH POWER	Fan speed is at its maximum resulting in maximum cooling effect.
THERMOSTAT	1-10	As the knob is turned clockwise the higher numbers on the dial indicate lower temperature.
SUPER WAVE	ON	Vertical louvres continuously change the direction of air flow. When the MASTER CONTROL knob is set to "OFF", the SUPER WAVE does not operate.
	OFF	Vertical louvres stop enabling air flow to be directed in any desired direction.
SELECT LEVER		This lever is used to adjust the air flow direction and sweep angle. For details, refer to pages 8-12.
EXHAUST AIR	OPEN	Room air is drawn outside.
	CLOSE	Exhaust vent is closed.

## Cooling

To obtain maximum cooling effect in the hot summer select position HIGH POWER on the MASTER CONTROL. Maximum moisture removal, air circulation and dust removal are effected at the same time.

Selection of SUPER QUIET reduces operating noise.

## Air Circulation

An adequate flow of air is very important for comfort. When the MASTER CONTROL knob is set at "FAN" position, the fan only is actuated so that the air is filtered and circulated without cooling effect.

If desired, it is possible to expel room air.

Air circulation only without cooling effect may also be achieved with the THERMOSTAT knob turned counterclockwise to "1" position and with the MASTER CONTROL at either "HIGH POWER" or "SUPER QUIET" position.

## Thermostat Control

The THERMOSTAT is set by means of the thermostat control. When the room temperature is higher than the THERMOSTAT setting, the compressor is automatically switched on to provide a cooling effect. When the room temperature is lower than the THERMOSTAT setting, the compressor is automatically switched off to stop cooling. It can be seen therefore, that the THERMOSTAT serves to keep the room temperature constant by causing the compressor to start and stop automatically.

1. When you wish to lower the temperature, turn the THERMOSTAT control clockwise in the direction of the higher numbers on the dial.
2. When you wish to increase the temperature, turn the THERMOSTAT control counterclockwise in the direction of the lower numbers.
3. When the THERMOSTAT is set at positions “5”, “6” or “7”, comfortable room temperatures can usually be obtained. Please note that it is unhealthy for the room temperature to be lower than approximately 22 °C.
4. When the THERMOSTAT control is positioned at “10”, the room-side fin coil may freeze up due to excessively low room temperature (for example, below 18 °C) caused by low outdoor temperature at night.  
Once the fin coil becomes frozen, the air flow from the air conditioner is restricted by the frost, and the room temperature may rise due to the resultant weak cooling performance of the air conditioner.
5. The THERMOSTAT positions “8”, “9” and “10” can be used when the room temperature does not become sufficiently low. This condition may occur when the thermostat switches off automatically because cooled air, when it passes through the horizontal louvres positioned downwards and the vertical louvres positioned to the left, makes a short circuit and the recirculated air touches the sensor of the thermostat.

**NOTE:** The thermostat controls the compressor only and accordingly the fan is constantly circulating air even during the period when the compressor is off.

## **Important**

When restarting the cooling operation after it has been turned off by either MASTER CONTROL or THERMOSTAT, be sure to allow at least 3 minutes. If cooling operation is restarted immediately after it is turned off, an overcurrent will flow through the compressor motor and the safety device will be actuated. If the safety device is actuated it will not be possible to restart the compressor motor for about 20 minutes.

## **Exhaust Air Control**

By setting EXHAUST AIR control lever to the appropriate positions between “OPEN” and “CLOSE” position, it is possible to expel the room air to the desired extent. The quantity of air to be expelled will increase when the lever is positioned closer to the “OPEN” position.

## **Air Direction Control**

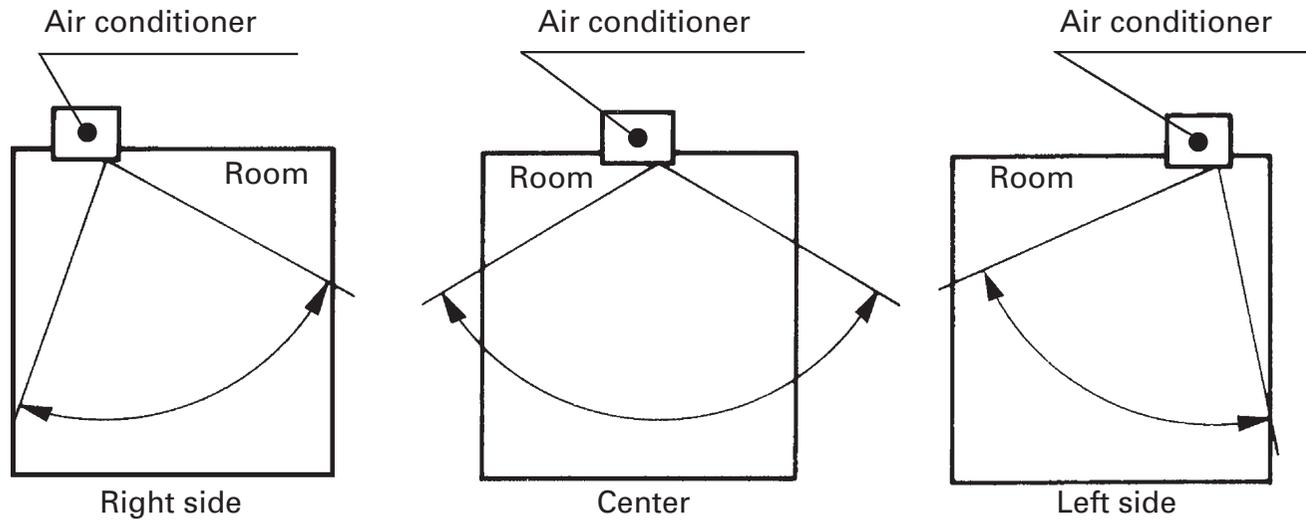
When the SUPER WAVE switch is turned to “ON” position, the vertical louvre is automatically actuated and sweeps the jet of air alternately, right and left and thus more effective cooling will be obtained.

Louvres may be stopped at any position when SUPER WAVE switch is turned off.

Sweep angle and direction can be adjusted with the select lever. The sweep can span an area either to the right or to the left. Select a sweep angle suitable to the layout of the room and the position of the air conditioner in the room which the air conditioner is installed.

## Air Flow Adjustment

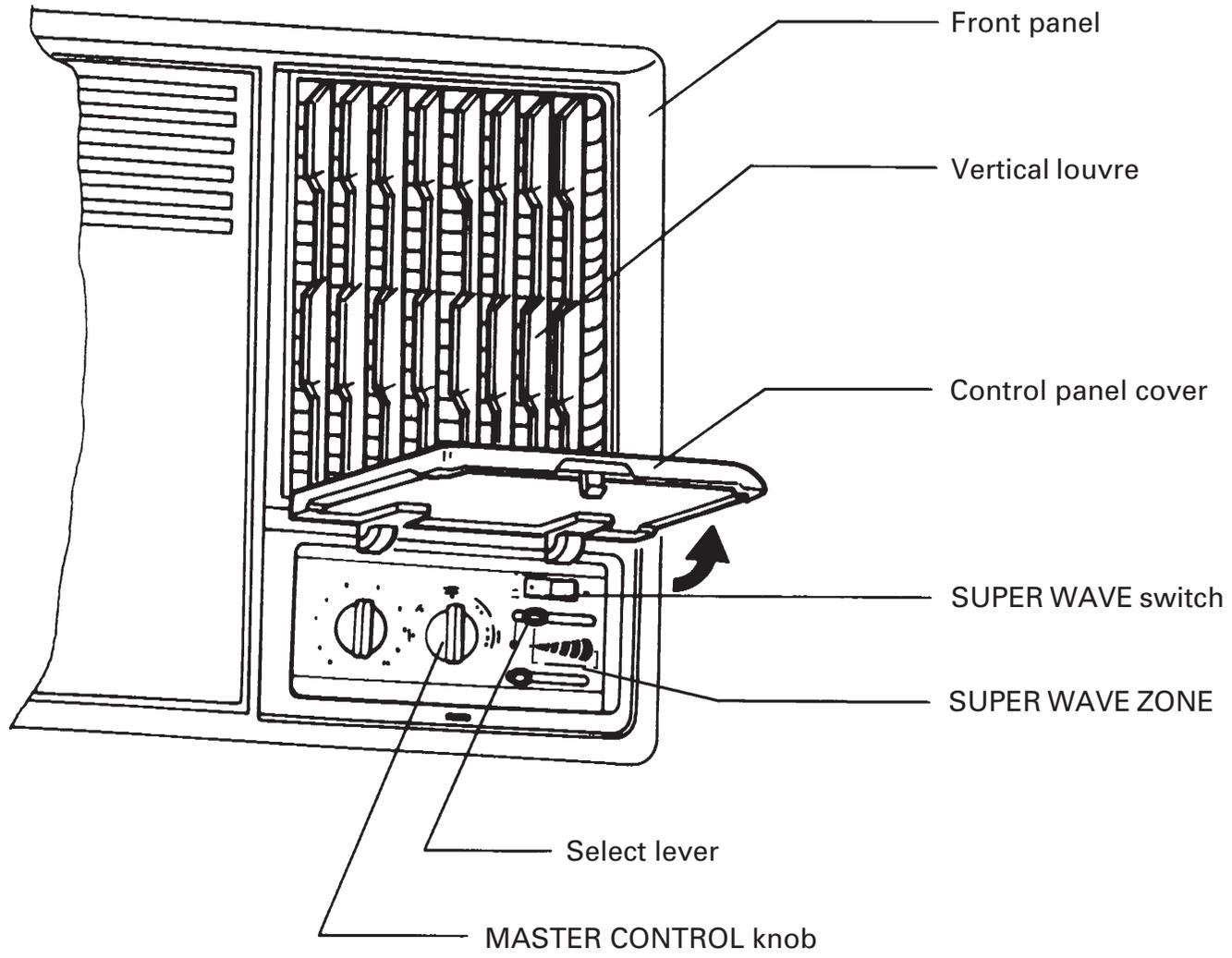
With this air conditioner, three air directions can be obtained as shown in the figures below. When the air flow direction is set, adjust to the desired sweep angle.



**NOTE:** Setting the vertical louvre at high room humidity.

1. Set the SUPER WAVE switch to ON.
2. Or, to use with the SUPER WAVE switch to OFF, set the switch to OFF when the vertical louvre moves to the center.

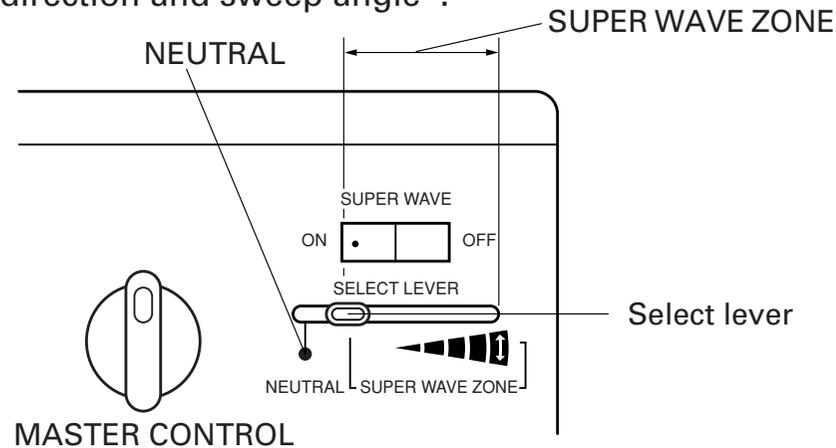
# Names and Functions



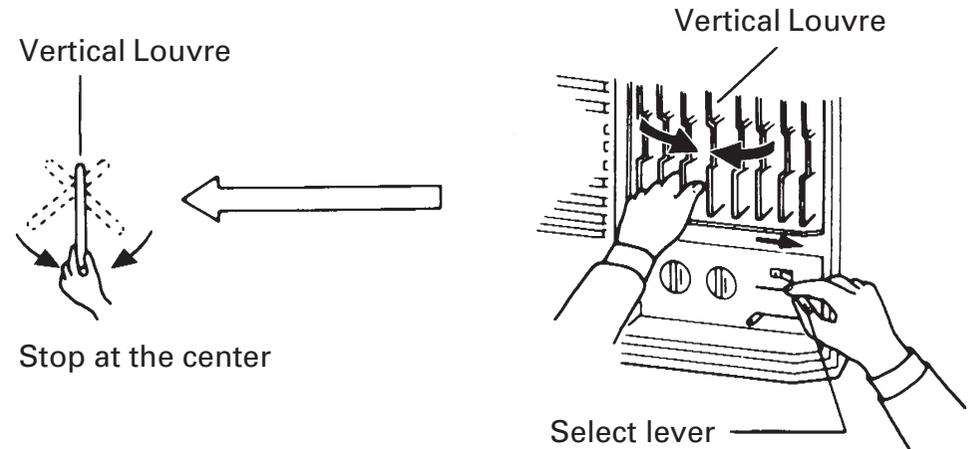
## Adjusting Sweep Angle

When the select lever is moved to the right or left, the sweep angle increases or decreases. Adjust the sweep angle within SUPER WAVE ZONE range.

**NOTE:** When the select lever is returned to the "NEUTRAL", the vertical louvres do not normal operate. If the select lever is returned to the "NEUTRAL" in error, readjust the sweep angle referring to "Adjusting air flow direction and sweep angle".



1. Move the select lever fully left to the "NEUTRAL".
2. Position the vertical louvres approx. at the center and move the select lever fully to the right end of the SUPER WAVE ZONE.

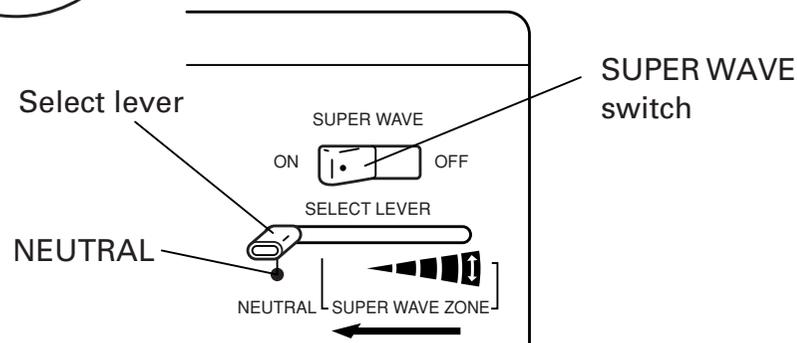
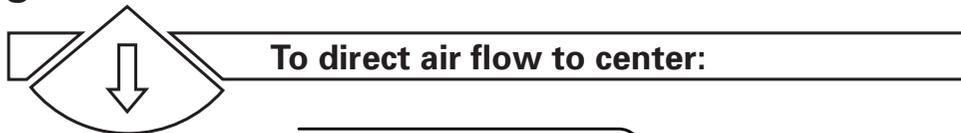


3. Set the SUPER WAVE switch to "ON".  
The vertical louvres start rotating with the maximum sweep angle.
4. The sweep angle can be adjusted within the SUPER WAVE ZONE range. When the select lever is returned to the left, the sweep angle decreases. Adjust sweep angle according to preference.

**NOTE:** If the MASTER CONTROL knob is set to "OFF", set it to the other position.

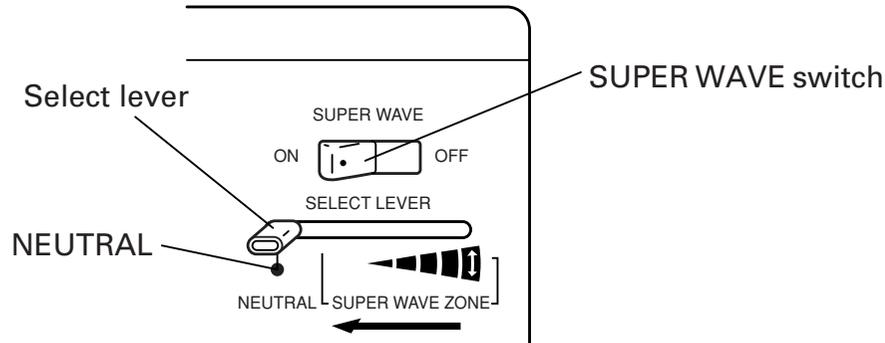
**NOTE:** If the select lever is returned to the "NEUTRAL" in error, the vertical louvres do not function properly. In this event, carry out the procedure from the beginning.

## Adjusting Air Flow Direction and Sweep Angle

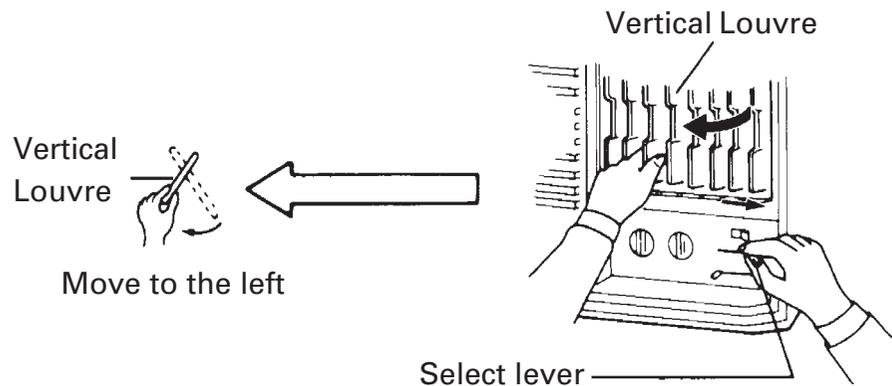


**To direct air flow to left side:**

1. Move the select lever fully left to the "NEUTRAL".



2. Lightly move the vertical louvres to the left until they stop, and move the select lever fully to the right end of the SUPER WAVE ZONE.



3. Set the SUPER WAVE switch to "ON".  
The vertical louvres start rotating with the maximum sweep angle.

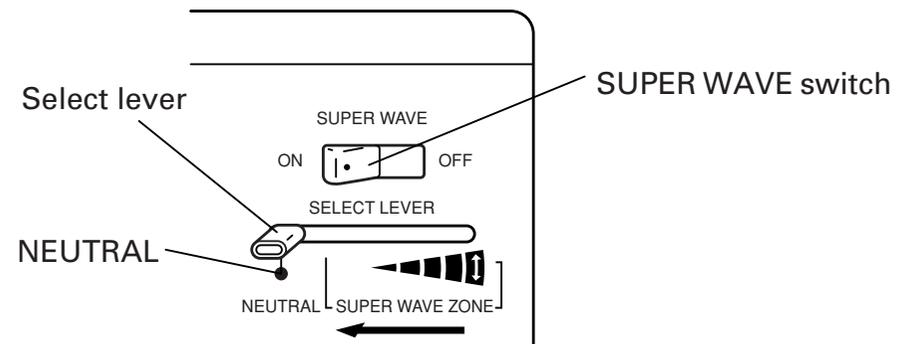
**NOTE:** If the MASTER CONTROL knob is set to "OFF", set it to the other position.

4. The sweep angle can be adjusted within the SUPER WAVE ZONE range. When the select lever is returned to the left, the sweep angle decreases. Adjust sweep angle according to preference.

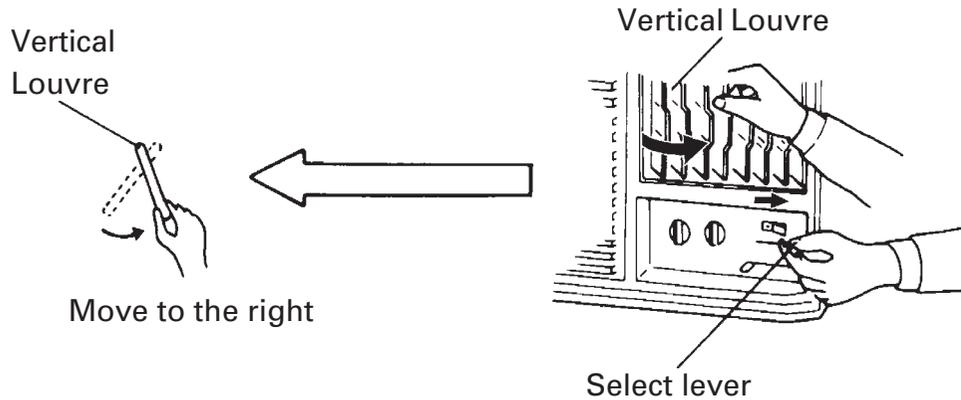
**NOTE:** If the select lever is returned to the "NEUTRAL" in error, the vertical louvres do not function properly. In this event, carry out the procedure from the beginning.

**To direct air flow to right side:**

1. Move the select lever fully left to the "NEUTRAL".



- Lightly move the vertical louvres to the right until they stop, and move the select lever fully to the right end of the SUPER WAVE ZONE.



- Set the SUPER WAVE switch to "ON".  
The vertical louvres start rotating with the maximum sweep angle.  
**NOTE:** If the MASTER CONTROL knob is set to "OFF", set it to the other position.
- The sweep angle can be adjusted within the SUPER WAVE ZONE range. When the select lever is returned to the left, the sweep angle decreases. Adjust sweep angle according to preference.  
**NOTE:** If the select lever is returned to the "NEUTRAL" in error, the vertical louvres do not function properly. In this event, carry out the procedure from the beginning.

## MAINTENANCE

### Room Air Filter

A filter is provided on the rear of the removable panel. Since the function of this filter is to filter dust and dirt in the air, please clean it regularly before it becomes clogged with dust. Wash the filter with clean water. If it is very dirty, rinse it in a synthetic detergent before washing in clean water. Allow the filter to dry thoroughly in the shade after washing. Remove the filter in the following manner.

Using the frip position, push the bottom of the removable panel up with your hand, pull it toward you, and the removable panel will be easily removed (See Fig. 1, Fig. 2).

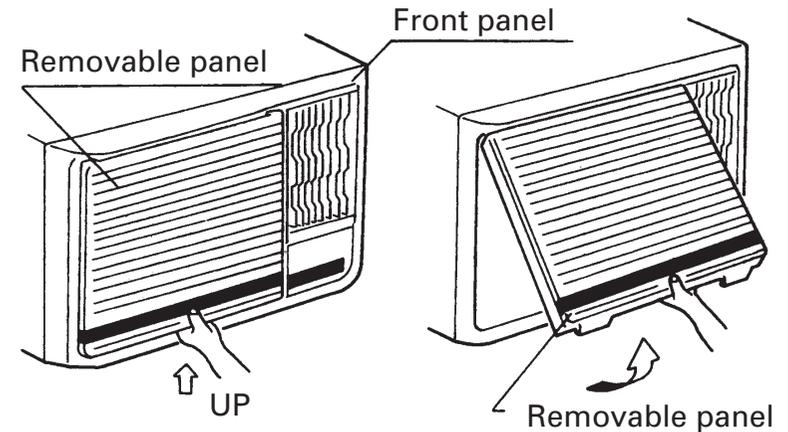


Fig. 1

Fig. 2

The filter is attached to the rear side of the removable panel. Pull the lower edge of the filter forward in order to remove the filter from the removable panel (See Fig. 3). To replace the filter, insert the top edge of the filter under the hooks at the top of the removable panel, then press into the two lower hooks to fix into place (See Fig. 4).

When you want to refit the removable panel, insert it by pushing the upper edge of the removable panel against the upper part of the front panel.

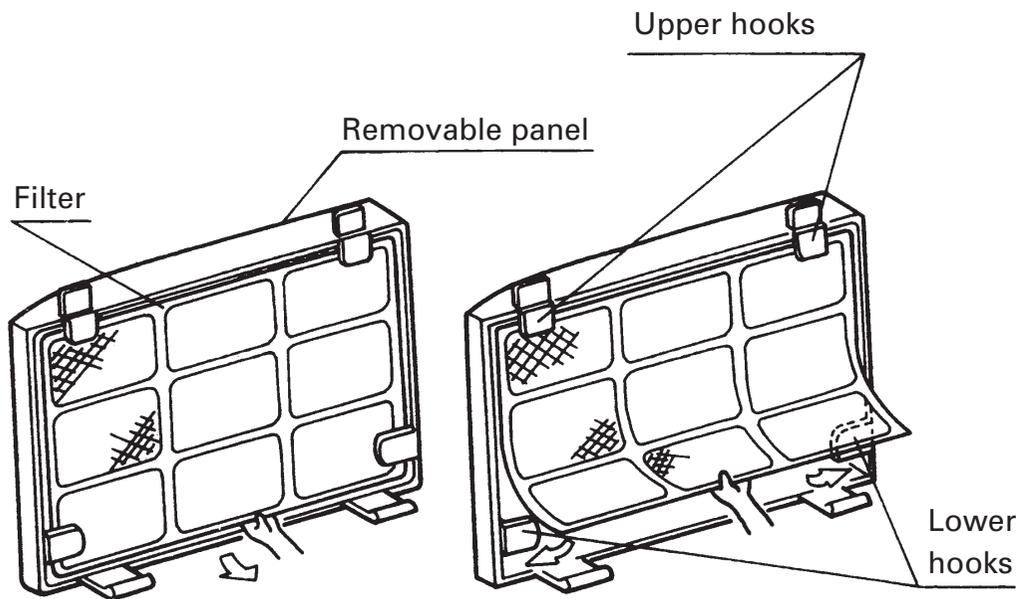


Fig. 3

Fig. 4

## How to Install the Removable Panel

The removable panel can be installed either way up so that the filter inside is out of sight depending on the location height of the air conditioner. In this case, the removable panel can be easily taken off no matter if it was installed either way up.

## How to Remove the Front Panel

Remove the front panel in the following manner.

The front panel is attached to the cabinet with snap clips at the top and screws at the bottom. Remove the removable panel first and you will see two screws at the left and right of the bottom side. Take them off. (See Fig. 5) Hold up the front panel with your hands to remove it completely. (See Fig.6) When refitting the front panel, insert the two clips on the upper part of the panel into the two slots at the top side of the cabinet. Press the front panel at its bottom side and fix it with screws. This completes refitting of the front panel.

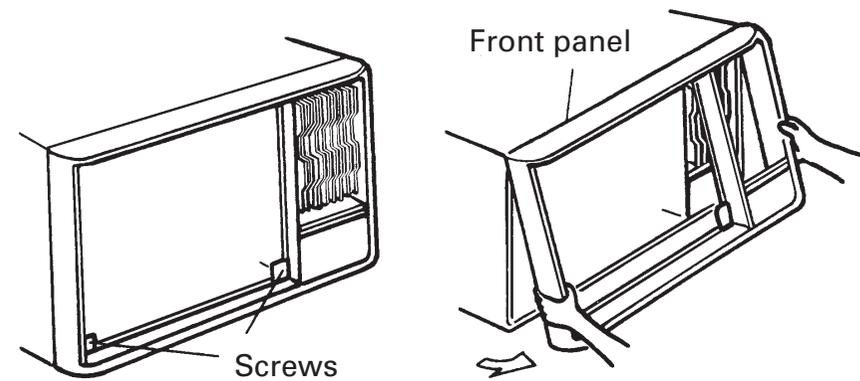


Fig. 5

Fig. 6

- NOTE:**
1. A fuse may blow when a particularly large demand for electricity, which exceeds the capacity of the fuse, occurs in your home or when the voltage of the main power line drops due to some fault. If the fuse blows again after replacement with a new one, please call your dealer or service company.
  2. Your air conditioner also acts to dehumidify the room air and to expel the water produced, therefore drops of water emitting from the outside of the unit is quite normal.
  3. The noise level of your air conditioner may be felt to be higher at night than during the day. This is quite normal. This results from the fact that environmental noise level is lower at night so the noise level of the air conditioner is felt to be relatively higher.

## Things to Do Before Calling a Serviceman

1. If your air conditioner does not operate, check the following items before calling for service.
  - a) Check that the power plug is properly connected to the power socket.
  - b) Check your fuses.
2. When cooling effect is not obtained even with the air conditioner operating, make the following checks.
  - a) Check that the thermostat setting is higher than the room temperature.

- b) Check the filter. A clogged filter will reduce cooling efficiency. When a filter is excessively dirty, cooling coils may ice up.
- c) If the cooling coils are iced up, wash the filter. To get rid of the ice quickly, operate the air conditioner with the MASTER CONTROL knob on "FAN" position until all the ice has gone.

## General information

The compressor motor does not require lubrication as it contains sufficient oil.

No lubrication is required for the bearings of the fan motor as dust shielded ball bearings containing grease are fitted.