

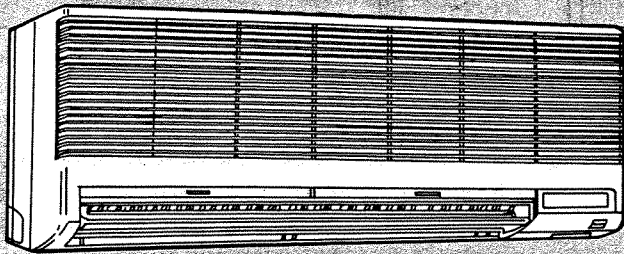


SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

Models **MSH12/15E** series

OPERATING INSTRUCTIONS

Mr.SLIM



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Read these instructions carefully before use.

After reading keep this manual in a safe place for future reference. It will be useful later when further information is required or the air conditioner malfunctions.

1. PRECAUTIONS

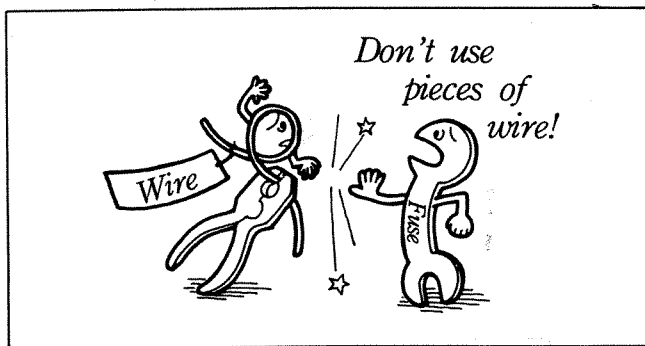
Do not install the unit in motor homes or caravans.

The following items require special attention.

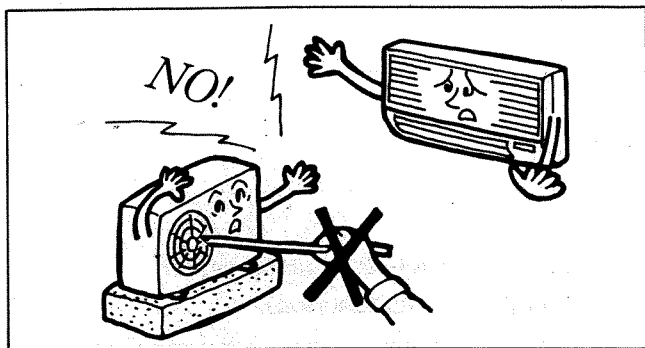
Read the entire text carefully, as there are many important points a user should know.

- In any of the following cases, turn off the power supply main switch and contact your local dealer for service.
 - If the switches do not work properly.
 - If the safety mechanism (fuse or circuit breaker) is actuated frequently.
 - If water is accidentally splashed onto the air conditioner.
 - If something is dropped into the air conditioner.
 - If the air conditioner malfunctions.

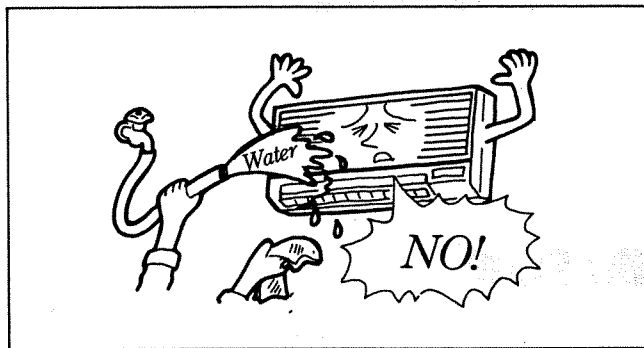
- Use the correct power (voltage and frequency) indicated on the unit to operate the air conditioner and use only fuses with specified capacity. Do not use pieces of wire instead of fuses.



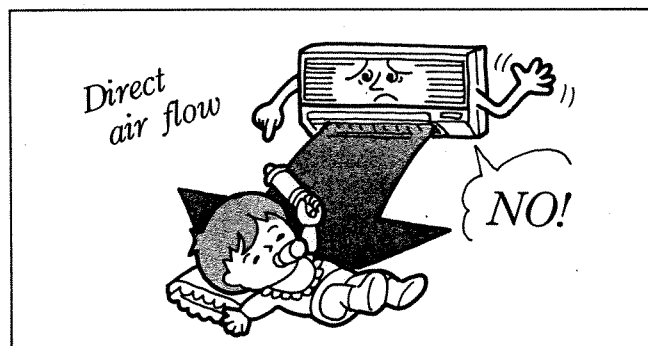
- Do not insert objects into the AIR INLET or OUTLET when the air conditioner is running. Damage or personal injury may result. Pay special attention when children are around.



- Do not pour water onto the unit for cleaning. Do not place anything containing water on the unit.



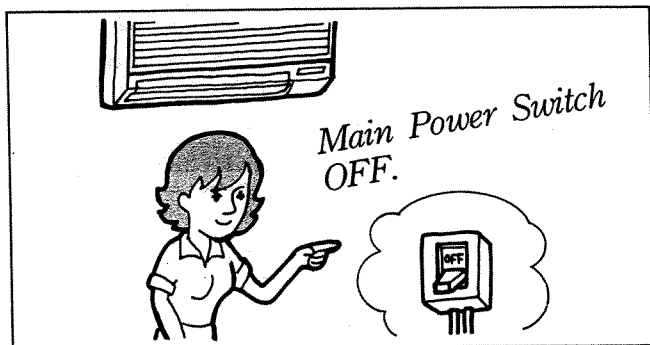
- Do not channel the air flow directly at people, especially at infants, aged, or handicapped.



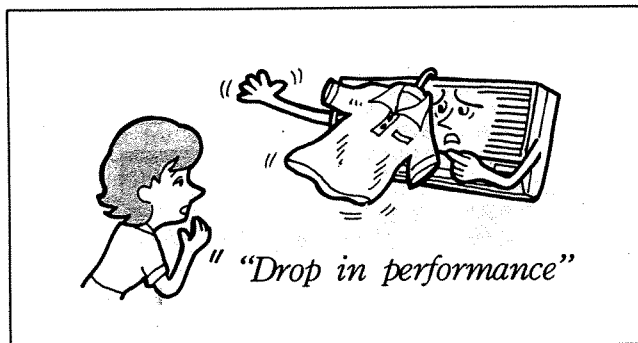
- **Install the unit 3 feet or more away from a TV set or radio.**

Can cause interference to TV screen image and noise trouble.

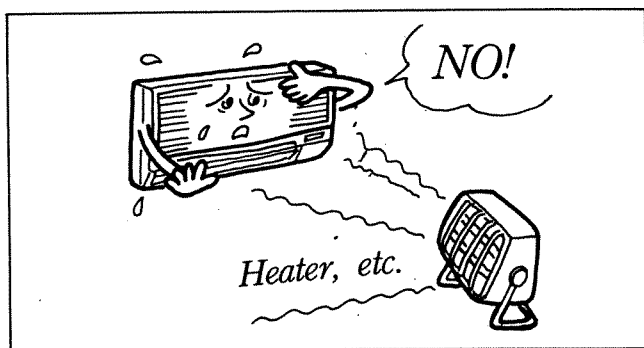
- If the unit is not to be used for a long time, turn off the power supply main switch.



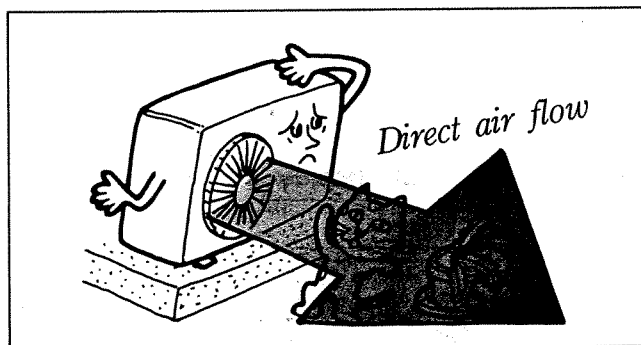
- Do not hang clothes, etc. near the air outlet. They can cause a drop in performance or a malfunction.



- Do not place a heater or other source of intense heat near the unit. The heat may deform the FRONT PANEL and REMOTE CONTROLLER.



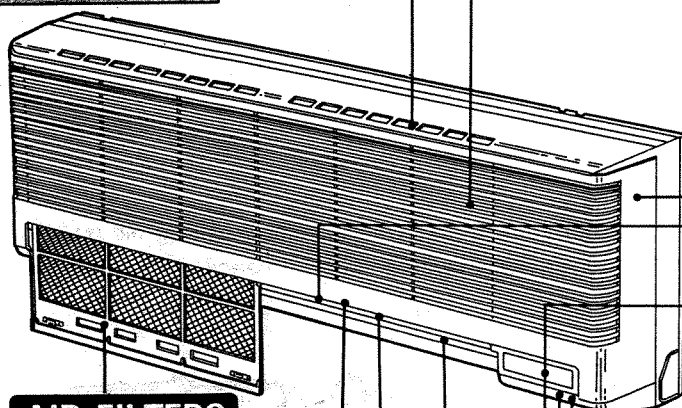
- Do not channel airflow directly at pets or plants, and pay attention to the air discharged from the OUTDOOR UNIT.



Unit should be installed by licensed contractor according to local code requirements.

2. PART NAMES AND THEIR FUNCTIONS

INDOOR UNIT

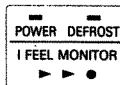


AIR FILTERS

GUIDE VANE (Refer to page 17)

AUTO VANE (Refer to page 16)

● I FEEL MONITOR



Shows the room temperature for I FEEL CONTROL operation.

- ▶ ▶ ● Shows that the unit is in operation for the set temperature (when 3°F or more difference exists between set temperature and room temperature).
- ▷ ▶ ● Shows that the room temperature has almost reached the set temperature (difference from set temperature is 2 to 3°F).
- ▷ ▷ ● Shows that the room temperature is almost the set temperature (difference from set temperature is 2°F or less).

● Indoor unit display section



POWER lamp
Lights when POWER is turned ON.

DEFROST lamp
This lamp lights at start of heating and while defrosting. While defrosting, the indoor fan may stop for a while.

AIR INLET

Provided on the front and top.

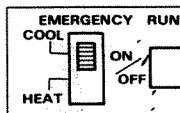
FRONT PANEL

AIR OUTLET

INDOOR UNIT DISPLAY SECTION

THERMAL SENSOR

INDOOR UNIT OPERATION SECTION



Use only for TEST RUN at installation or when the WIRELESS REMOTE CONTROLLER malfunctions.

WIRELESS REMOTE CONTROLLER

(Refer to page 5)

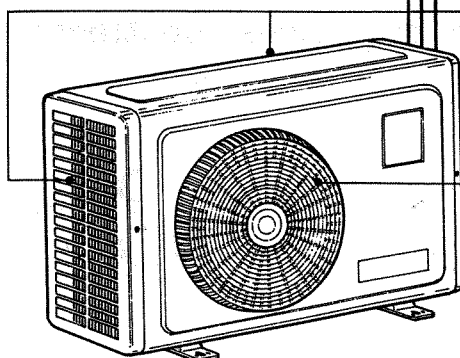
DRAINAGE HOSE

Removes water produced during cooling.

CONNECTING WIRING

CONNECTING PIPES

OUTDOOR UNIT



AIR INLET

Located on the back and side.

AIR OUTLET

WIRELESS REMOTE CONTROLLER

Once the controls are set, the same operation mode can be repeated by simply turning the POWER switch ON.

When batteries are replaced all of the controls' memories will be canceled, and 'I FEEL...' mode is automatically selected.

LCD INDICATOR

This mark appears when the signal is sent to the indoor unit.

Indicates the selected mode

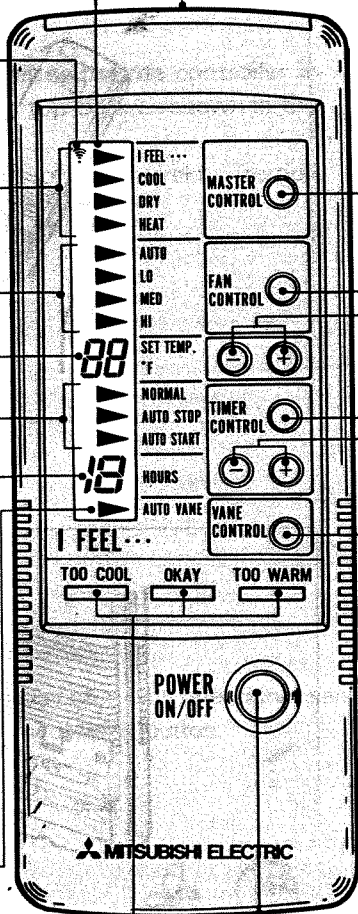
Indicates the selected FAN speed

Indicates the temperature setting

Indicates the timer mode

Indicates the setting time and the remaining time in timer

Indicates the VANE CONTROL mode



SENDING SECTION

Sends an infrared signal to control the air conditioner.

MASTER CONTROL button

A selector for 'I FEEL...', COOL, DRY and HEAT.

FAN CONTROL button

A selector to change the indoor airflow to AUTO, LO, MED, and HI.

SET TEMP. buttons

This button is for setting of desired room temperature.

⊕ button is to raise the temperature
⊖ button is to lower the temperature by 2°F each time the button pressed.

(Refer to page 19)

TIMER CONTROL button

A selector for automatic ON/OFF of the air conditioner.
NORMAL: Continuous operation regardless of the timer setting.

AUTO STOP: 12hr Automatic OFF Timer.

AUTO START: 12hr Automatic ON Timer.

(Refer to page 18)

TIME SETTING buttons

Use this button to set the time for timer control operation.

⊕: Increase by one hour

⊖: Decrease by one hour each time the button is pressed.

VANE CONTROL button

A selector for **AUTO VANE** operation and Adjustment
(Refer to page 16,17.)

POWER ON/OFF button

Switches the air conditioner power ON or OFF.

Turns ON when pressed once and turns OFF when pressed again.

'I FEEL...' buttons

When you feel "TOO WARM" or "TOO COOL" and "OKAY" (comfort) during the operation of the unit, the desired temperature can be changed by pressing the following buttons.

TOO WARM Press when you feel too warm:
(see page 8 and 9)

OKAY Press when you feel comfortable while the unit is operating. That comfort level will be maintained.

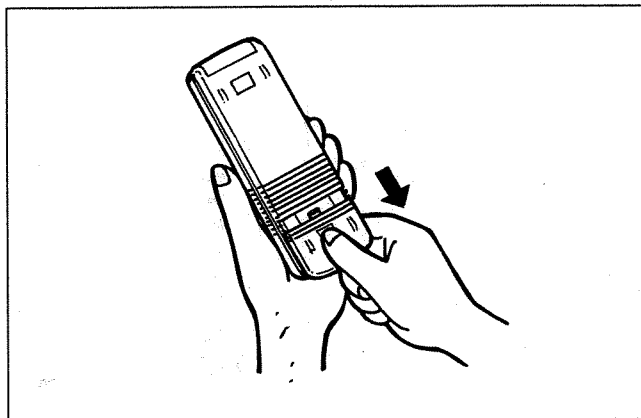
TOO COOL Press when you feel too cool.
(see page 8 and 9)

●How to use the WIRELESS REMOTE CONTROLLER

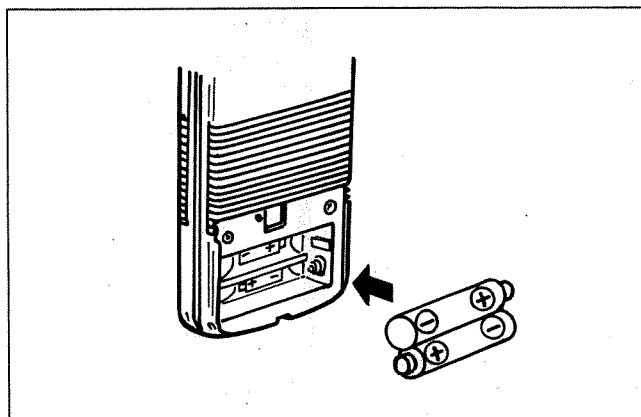
BATTERY REPLACEMENT

Replace the old batteries with new ones when the signal does not reach the indoor unit or the "  " mark does not appear on the remote controllers display when the signal is sent.

①Remove the rear cover.



②Replace batteries. 2-Alkaline batteries(AAA). Do not mistake the positive $\oplus$ and negative $\ominus$ directions.



③Reinstall the cover.

CAUTIONS

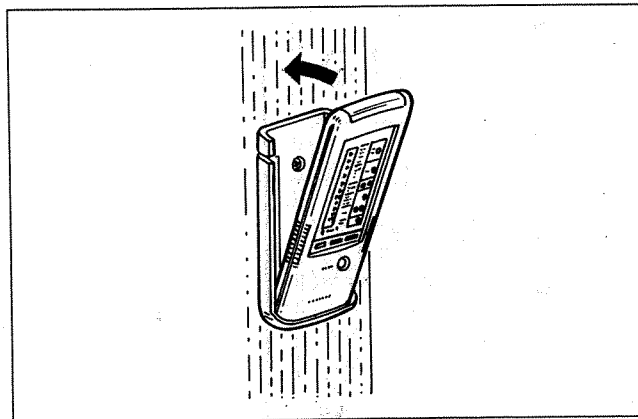
- Always replace both batteries with fresh ones of the same type.
- To avoid trouble due to battery fluid, remove batteries from the wireless remote controller when the unit is not used for a long duration.
- The life of battery under normal use is about 12 months.

●How to use the WIRELESS REMOTE CONTROLLER

- When the indoor unit correctly receives a signal from the wireless remote controller, a 'beep' tone can be heard.
- If signal from the wireless remote controller is blocked by obstacles, there will be no response.
- The signal from the wireless remote controller can be transmitted up to 20 feet.

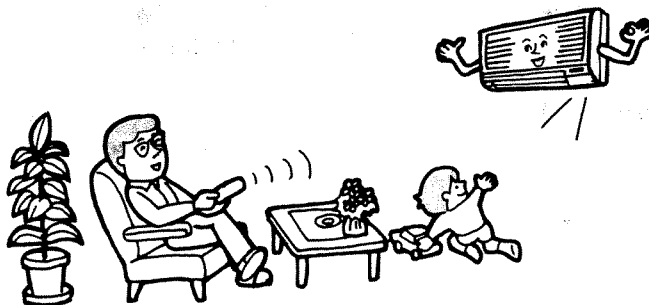
Wall mounting

- Set the bottom of the wireless remote controller in the mount, then push the top back as shown in the figure.
- For removal, pull the top of the wireless remote controller.



For hand held use

- Hold the wireless remote controller with the signal sending section facing straight to the signal receiving section of indoor unit then press the necessary button.



CAUTION

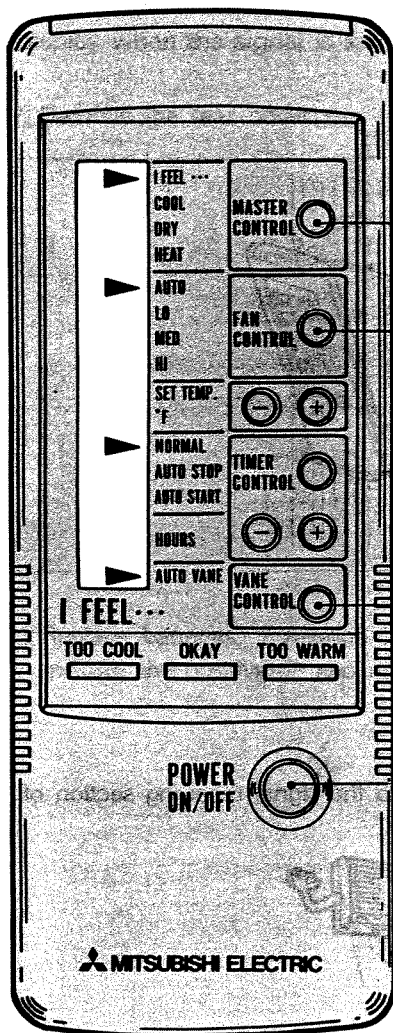
- Signals from the wireless remote controller may not be received by the indoor unit if fluorescent lights are installed in the room.
- If this occurs try repositioning the remote controller to a more direct location.
- Install the air conditioner in a place free of dust, high temperature, vibration and shock.

3. OPERATING PROCEDURE

(1) "I FEEL CONTROL" operation

● How to set the CONTROLS.

Once the controls are set, the same operation can be repeated by simply turning the POWER switch ON.



1 Press **POWER** ON/OFF button.

2 Select **I FEEL...** mode.

Select the desired fan speed.

- During DRY mode the fan speed will be automatically selected.

Set to **AUTO VANE** mode. (Refer to page 16.17)

- **AUTO VANE** mode is recommended for optimum temperature distribution of the room.

STOP Press **POWER** ON/OFF button.

Once the air conditioner is turned off it will not restart for about 3 minutes to protect the air conditioner.

HOW to use 'I FEEL...' button.

■ When the unit is operated in the 'I FEEL ...' mode, the temperature setting is microprocessor controlled, but pressing the 'Too warm' 'Too cool' or 'OKAY' buttons will change the temperature setting.

- | | |
|-----------------|--|
| TOO WARM
[] | Lowers the set temperature 2°F to 5°F below the existing room temperature. |
| OKAY
[] | Maintains the current comfort level. |
| TOO COOL
[] | Raises the set temperature 2°F to 5°F above the existing room temperature. |

Contents of 'I FEEL...' operation

Selection of operation mode.

■ Automatically selects operation mode according to room temperature at start of operation.

- When room temperature at start of operation is 77°F or higher, COOL mode will be selected.
- When the room temperature at start of operation is in 73°F to 77°F range, DRY mode will be selected.
- When the room temperature at start of operation is 73°F or lower, HEAT mode will be selected.
- Once an operation mode is set the same mode remains unchanged even when the room temperature changes.
- As an exception if the system is restarted within about 1 hour after stopping, the microprocessor will keep the same operation mode as the previous setting.

Room temperature control

- The room temperature setting buttons do not work while the air conditioner is operated in the 'I FEEL ...' mode. Only the 'I FEEL...' button can be used for room temperature control.
- Pressing the 'I FEEL ...' buttons changes the set temperature as you feel comfortable.
- Temperature comfort range is 59°F to 89°F.

I FEEL MONITOR

■ The display gradually changes as the room temperature reaches to the set temperature.

- ▶ ▶ ● Indicates that the air conditioner is operating to reach the set temperature, (difference between set temperature and room temperature is 3°F or more).
When the unit is in cooling operation of **I FEEL ...**, pressing the **TOO WARM** button will not change the set temperature. Wait for a while.
When the unit is in heating operation of **I FEEL ...**, pressing the **TOO COOL** button will not change the set temperature. Wait for a while.

▷ ▶ ● Indicates that the room temperature is approaching the set temperature. (difference is 2°F to 3°F).

▷ ▷ ● Room temperature has almost reached the set temperature (difference is 2°F or less).

■ Pressing **I FEEL ...** button emits 'beep-beep' tone at the indoor unit and the I FEEL MONITOR lamp blinks.

If the I FEEL... operation mode is different from what is desired

Reset the operation mode selector switch to DRY, COOL or HEAT

'I FEEL ...' operation is designed to control the room temperature according to the comfort of individuals, and does not change the maximum cooling capacity or the maximum heating capacity. Therefore, please do not overestimate the capacity of air conditioner.

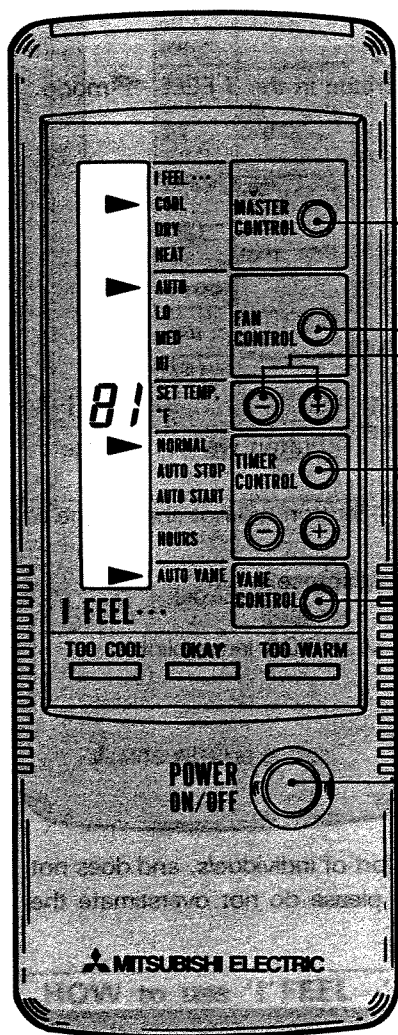
MICROPROCESSOR is working. You don't have to worry.

Operating mode	Symptom	
	● Both indoor and outdoor fans stop.	See page 12
	● The indoor fan stops and defrost lamp lights. ● White mist comes out of the outdoor unit. ● An air blow-out sound is sriecly heard at the outdoor unit. ● The outdoor fan stops.	See page 14

(2) COOLING operation

● How to set the CONTROLS.

Once the controls are set, the same operation mode can be repeated by simply turning the POWER switch ON.



1 Press **POWER** ON/OFF button.

2 Select **COOL** mode.

Select the desired fan speed.

Set to **AUTO VANE** mode.
(Refer to page 16,17)

- **AUTO VANE** mode is recommended for optimum temperature distribution of the room.

3 Set to desired room temperature
(Refer to page 19)

4 Set to **NORMAL**.

STOP Press **POWER** ON/OFF button.

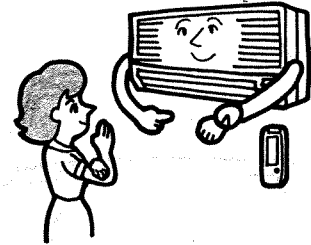
Once the air conditioner is turned off, it will not restart for about 3 minutes to protect the compressor.

3 minutes restart prevention mechanism

■ Once the air conditioner is turned off the unit may not restart for about 3 minutes to protect the compressor from excess load. During 3 minutes, the unit operates with only air flow and automatically restarts after about 3 minutes.

■ 3 minute restart prevention mechanism works under following conditions.

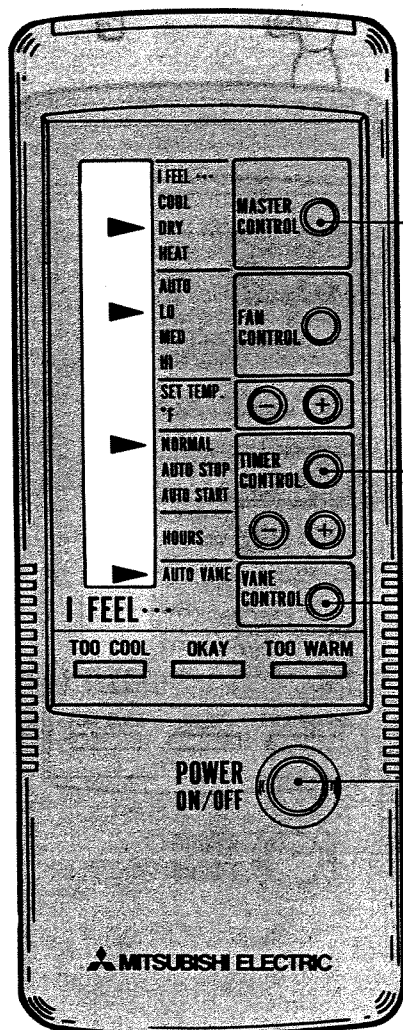
- When the power button is turned OFF.
- When the main power switch is turned OFF.
- Power failure.



(3) "DRY(DEHUMIDIFY)" operation

●How to set the CONTROLS.

Once the controls are set, the same operation mode can be repeated by simply turning the POWER switch ON.



1 Press **POWER** ON/OFF button.

2 Select **DRY** mode.

- During DRY mode, fan speed can not be manually selected.

Set to **AUTO VANE** mode.
(Refer to page 16,17)

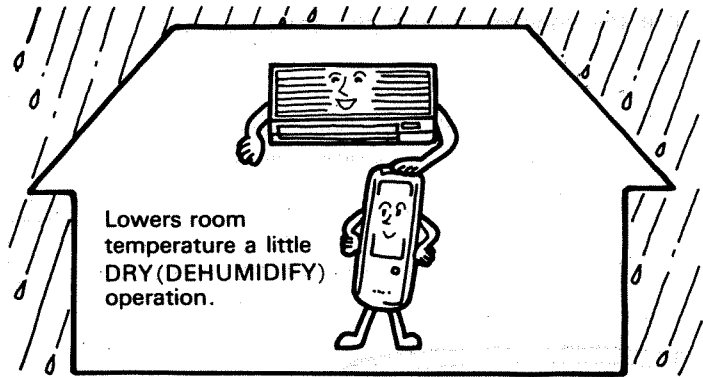
- **AUTO VANE** mode is recommended for optimum temperature distribution of the room.

3 Set to **NORMAL**.

STOP Press **POWER** ON/OFF button.

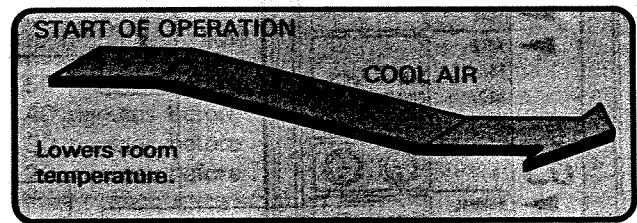
Once the air conditioner is turned off, it will not restart for about 3 minutes to protect the compressor.

- Removes humidity while intermittently operating the outdoor unit and indoor fan by microprocessor control.
- The microprocessor controls both room temperature and fan speed.



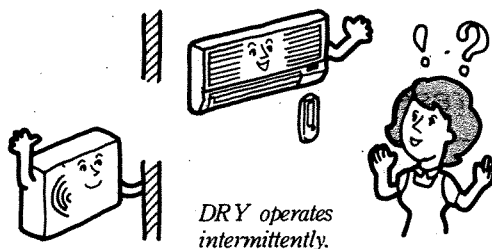
DRY(DEHUMIDIFY) operation lowering the room temperature a little.

- Sets temperature slightly lower than the room temperature. When the room temperature is below 55°F, dry function will not work.
 - Indoor fan operates discharging cool air at the low fan speed.
- If the outdoor unit stops at the same time the indoor fan operation stops.



MICROPROCESSOR is working. You don't have to worry.

Both the indoor fan and outdoor fan stop. DRY (DEHUMIDIFY) operation is intermittently repeated to remove humidity. Fans may stop from time to time due to microprocessor operation.



Room temperature adjustment and FAN CONTROL selector do not work. Both room temperature adjustment and FAN CONTROL are adjusted by a microprocessor.

