



**mitsubishi electric**

# Floor And Ceiling-Type Air-Conditioners

## MCFH-A12/18/24WV

## MCFZ-A18WV

### OPERATION MANUAL

#### For customers

Thank you very much for purchasing this Mitsubishi room air conditioner.

- To use this unit correctly and safely, be sure to read this operating instructions before use. Keep this manual carefully for later reference.
- Be sure to receive a guarantee card from your dealer and check that the purchased date and shop name, etc. are entered correctly.
- This air conditioner should not be installed by the customer. (Safety and performance functions can not be assured.)

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# SAFETY PRECAUTIONS

- Since rotating parts and parts which could cause an electric shock are used in this product, be sure to read these "SAFETY PRECAUTIONS" before use.
- Since these cautionary items shown here are important for safety, be sure to observe them.

Marks and their meanings are as shown below.

**Warning:** Incorrect handling could cause a serious hazard, such as death, serious injury etc. with a high probability.

**Caution:** Incorrect handling could cause a serious hazard depending on the conditions.

Meanings of symbols used in this manual are as shown below.

-  Be sure not to do.
-  Be sure to follow the instructions.
-  (Black) Never insert your finger or a stick, etc.
-  (Black) Never slip into the indoor/outdoor unit and do not put anything on them.
-  Danger of electric shock. Be careful.
-  Be sure to shut off the power.

- After reading this manual, keep it together with the installation manual in a handy place for easy reference.

Warning mark position



- This air conditioner is NOT intended for use by children or infirm persons without supervisions

## WARNING



Do not use intermediate connection of the power supply cord or the extension cord and do not connect many devices to one AC outlet.  
 • A fire or an electric shock may result from poor contact, poor insulation, exceeding the permissible current, etc.

Remove dirt from the power supply plug and securely insert the plug into the outlet.  
 • If dirt adheres to the plug or insertion is incomplete, it may cause a fire or an electric shock.

Do not scratch or process the power supply cord, etc.  
 • Do not put heavy object on the power supply cord and do not scratch or process the cord. The cord may be damaged and this may cause a fire or an electric shock.

Do not turn the breaker off/on and/or disconnect/connect the power supply plug during operation.  
 • This may cause a fire due to spark, etc.  
 • Be sure to shut off the breaker and/or disconnect the power supply plug absolutely after switching the indoor unit off with the remote controller.

Do not expose your skin directly to cool air for a long time.  
 • This could damage your health.

Installation, repairs or relocation should not be done by the customer.

- If this is done (incorrectly), it may cause a fire, air emitting shock, or injury from the unit falling, water leaking, etc. Contact your dealer.
- If the power supply cord is damaged, it must be replaced by the manufacturer or its service agent in order to avoid a hazard.



Do not insert your finger or a stick, etc. into the air inlet/outlet.  
 • Since the fan rotates at high speed, this may cause an injury.  
 • Young children should be supervised to ensure that they do not play with the air conditioner.



When an abnormality (burning smell, etc.) occurs, stop the air conditioner and disconnect the power supply plug and/or turn off the breaker.  
 • If the unit continues to be operated in an abnormal condition, it may cause a fire, trouble, etc. In this case, contact your dealer.



### Caution

- Do not put a vase or glass on the indoor unit. Water dripping into the indoor unit may deteriorate the insulation, causing electric shock.



- Do not clean the air conditioner with water. Water may enter the unit and deteriorate the insulation. This may cause an electric shock.



- Ventilate well in using the unit with a stove, etc. An oxygen shortage may occur.



- When the unit is not going to be used for a long time, turn off the breaker. Otherwise, dirt may collect and this may cause a fire.



- When the unit is to be cleaned, switch it off and turn off the breaker. Since the fan rotates at high speed during operation, this may cause an injury.



- Do not put a pet or houseplant where it will be exposed to direct air flow. This could injure the pet or plant.



- Do not use the unit for special purposes. Do not use the air conditioner to preserve precious objects, food, animals, plants and art objects. This may cause deterioration of quality, etc.



- When the air filter is to be removed, do not touch the metal part of the indoor unit. This may cause an injury.
- Do not touch the air inlet or the minimum fin of the outdoor unit. This may cause an injury.
- Do not place other electric appliances or furniture under the indoor/outdoor unit. Water may drip down from the unit, and this may cause damage or malfunction to them.
- Do not put the power supply cord. The bare wire of the power supply cord may be disconnected and this may cause a fire.

### Caution

- Do not operate the unit for a long time in high humidity, e.g. leaving a door or window open, in the drying mode, if the unit is operated in a room with high humidity (bathroom or nursery) for a long time. Water condensed in the air conditioner may drip and wet or damage furniture, etc.



- Do not step onto an unstable bench when maintaining the unit, etc. This may cause an injury, etc. if you fall down.



- Replace the 2 batteries with new ones of same type. Using an old battery together with a new one may result in heat generation, leakage or an explosion.



### For installation

#### Warning

Consult your dealer for installation of first air conditioner.

#### Caution

- Earth the unit. Do not connect the earth to a gas pipe, water pipe, lightning rod or the auxiliary conductors. If the earthing is incorrect, it may cause an electric shock.
- Install an earth leakage breaker depending on the place where the air conditioner is to be installed (humid place, etc.). If the earth leakage breaker is not installed, it may cause an electric shock.
- Do not install the unit where flammable gas could leak. If gas leak also could arise, it may cause an explosion.



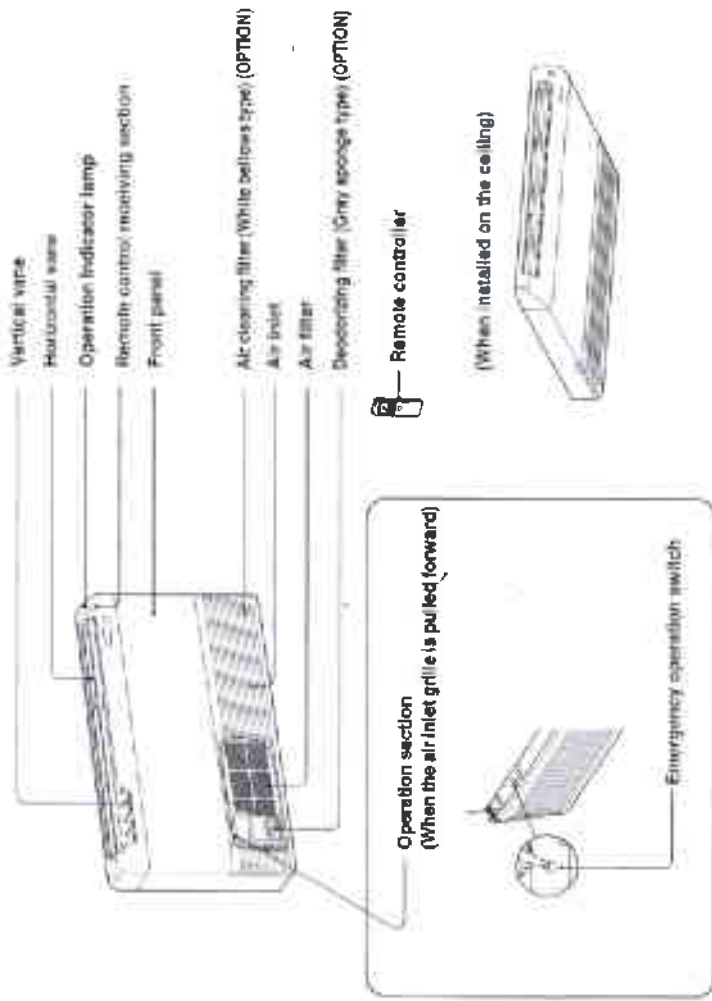
- Drain should be fully drained. If the drainage hole is not connected, water may drip from the unit. This may wet and damage furniture.





# NAME OF EACH PART

## Indoor unit (When installed on the floor)



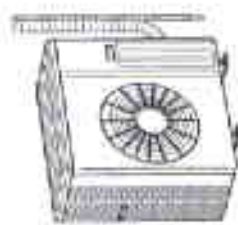
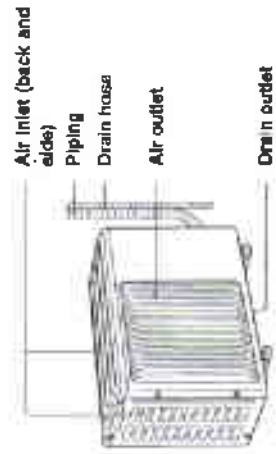
## Outdoor unit

MUH-A12YV

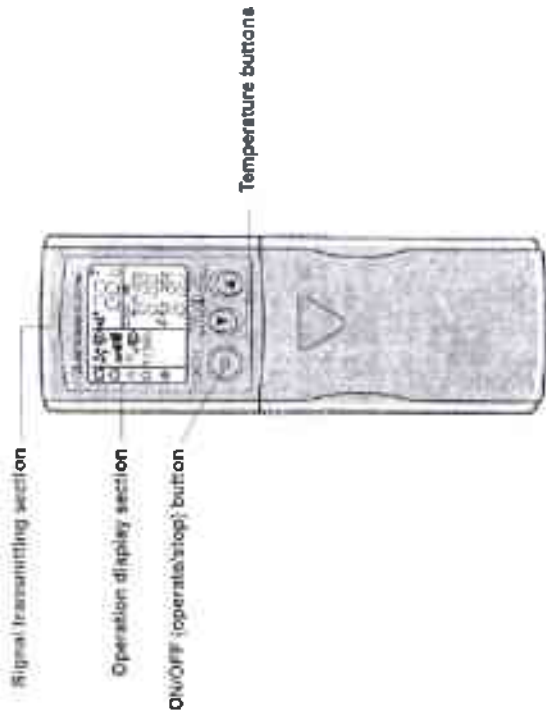
MUCFH-A18WV

MUCFH-A24WV

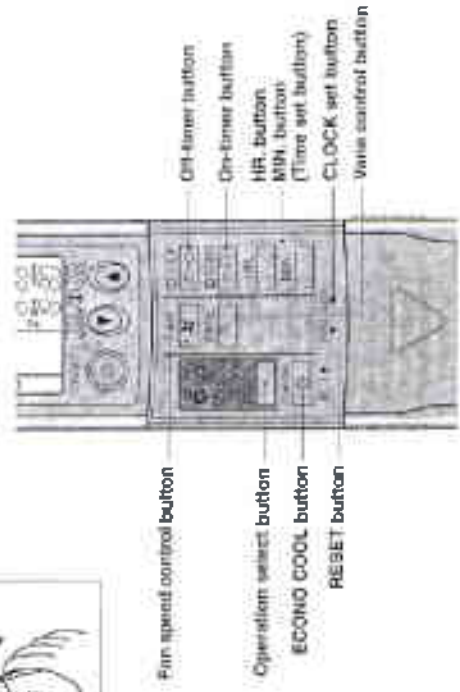
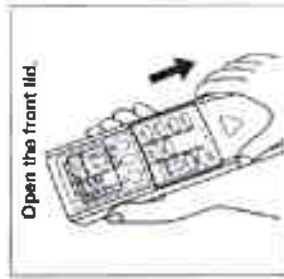
MUZ-A18YV



## Remote controller



(This diagram shows an overall view.)









# PREPARATION BEFORE OPERATION

## Auto restart function

- These models are equipped with an auto restart function. If you do not want to use this function, please consult the service representative because the setting of the unit needs to be changed.

## Auto Restart Notice is ...

When the indoor unit is controlled with the remote controller, the operation mode, the set temperature and the fan speed are stored in the memory. If a power failure occurs or the main power is turned off during operation, "Auto restart function" will automatically restart operating in the same mode as the one set with the remote controller just before the shut-off at the main power. (Refer to page 5 for details.)

## Indoor unit

- Insert the power supply plug into the power outlet and/or turn the breaker on.



**WARNING:**  
Remove dirt from the power supply plug and insert the plug securely. If dirt adheres to the plug or insertion is incomplete, it may cause a fire or an electric shock.

## Remote controller (How to set the batteries and the current time)

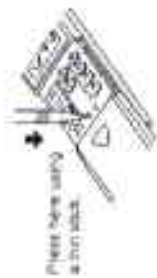
- Remove the front lid and insert batteries. Then reattach the front lid.



Insert the minus pole of the batteries first. Check if the polarity of the batteries is correct.



- Press the RESET button.



- If the RESET button is not pressed the remote controller may not operate correctly.

- Press the **1/10** and **MEM** button (TIME set button) to set the current time.



- Each time the **1/10** button is pressed, the set time is counted up by 1 hour, and each time the **MEM** button is pressed, the set time is counted up by 1 minute.

- Press the **CLOCK** set button again and close the front lid.

## Handling of the remote controller

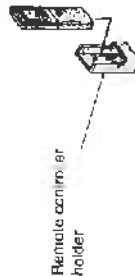
- The range that the signal can reach is about 8 m when the remote controller is pointed at the front of the indoor unit.
- When a button is pressed, one or two beeps will be heard from the indoor unit. If no sound is heard, operate again.
- Use the remote controller carefully. If it is dropped, thrown or it gets wet, the remote controller may not operate.

## When installing on a wall, etc.

- Insert the remote controller holder in a position where the signal reception sound (beep) can be heard from the indoor unit when the **MEM** button is pressed.

## How to install/remove the remote controller

- Installing: Insert the remote controller downward. (Refer to page 4.)



## Dry-cell batteries

- Reference for replacing batteries: Replace the batteries with new AAA alkaline batteries in the following order:
  - When the indoor unit does not respond to the remote control signal.
  - When the display on the remote controller becomes dim.
  - When a button of the remote controller is pressed, all displays appear on the screen, and then the screen immediately
- Do not use manganese batteries. The remote controller could malfunction.

- The service life of an alkaline battery is about 1 year. However, a battery whose time limit is approaching may be exhausted soon. The recommended usable time limit is indicated (month/year) on the bottom of the battery.
- To prevent liquid leakage, take out all batteries when the remote controller is not going to be used for a long time.

## CAUTION:

- If liquid from the batteries gets onto your skin or clothes, wash it well with clean water.
- If liquid from the batteries gets into your eyes, wash them well with clean water and consult a doctor at once.
- Do not use rechargeable batteries.
- Replace the 2 batteries with new ones of the same type.
- Dispose of exhausted batteries in the correct manner.

## When the remote controller can not be used (EMERGENCY OPERATION)

When the batteries of the remote controller run out or remote controller malfunctions, EMERGENCY OPERATION can be done using the EMERGENCY OPERATION switch.

### 1 Press the EMERGENCY OPERATION switch.

- Each time the EMERGENCY OPERATION switch is pressed, the unit will operate in order of EMERGENCY COOL MODE, EMERGENCY HEAT MODE and STOP MODE.

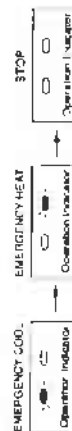
However, when the EMERGENCY OPERATION switch is once pressed, the unit will operate in full run for 30 minutes and then the operation mode shifts to EMERGENCY MODE.



- Details of EMERGENCY MODE are as shown below. However, the temperature control does not work for 30 minutes in full run and the unit is set to continuous operation. The fan speed is set to High in full run and shifts to Medium after 30 minutes.

Operation Mode	COOL	HEAT
Set temperature	24°C	24°C
Fan speed	Medium	Medium
Horizontal vane	Auto	Auto

- The operator mode is indicated by the Operation Indicator Lamp in the indoor unit as following figures.

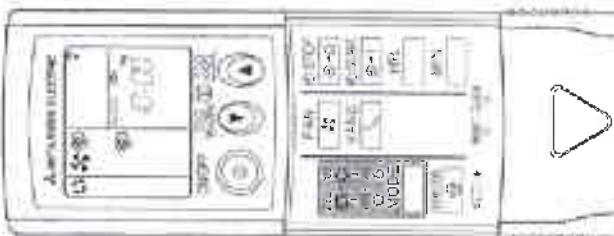


- To stop the emergency operation, press the EMERGENCY OPERATION switch once (in case of EMERGENCY HEAT MODE) or twice (in case of EMERGENCY COOL MODE).



# "I FEEL..." AUTO OPERATION

With the "I FEEL..." auto operation mode, the optimum room condition can be set automatically with a one-touch operation.



**To start operation:**  
Press the "I FEEL..." button.

When the "I FEEL..." mode is selected, the air conditioner is automatically controlled at the optimum temperature.

**To stop operation:**  
Press the "STOP" button.

**If you feel slightly warm,**

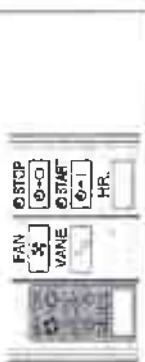
Press the "DOWN" button to lower the temperature.  
One press lowers the temperature by about 1°C.

**If you feel slightly cool,**

Press the "UP" button to raise the temperature.  
One press raises the temperature by about 1°C.

When "I FEEL..." is not selected, press the "I FEEL..." button until it is set.

Each time the button is pressed, the operation mode is changed in sequence: "I FEEL..." → "COOL" → "DRY" → "HEAT".



**Description of "I FEEL..." mode**  
**Details of operation**

According to the room temperature when the operation starts, the operation mode is automatically set to COOL, DRY or HEAT. However, when operation is started again within 2 hours after it is stopped, the same operation mode before the operation is stopped is selected. The operation mode selected that is not changed even if the room temperature changes. If the operation mode does not match the room condition, select the appropriate operation mode by pressing the "MODE" button.

**Details of auto operation**

Floor temperature when started	Opera. on mode	Target temperature (initial state)
About 25°C or higher	COOL	About 24°C
About 25°C to 23°C	DRY	—
About 23°C or lower	HEAT	About 25°C

**Note:**

**COOL:** When the room temperature is 2°C higher than the set temperature, the set temperature may not be changed since the air conditioner is operating to reach the target (set) temperature. In this case, please wait until the room temperature drops to within 2°C of the set temperature and then change the set temperature.  
**HEAT:** When the room temperature is 2°C lower than the set temperature, the set temperature may not be changed since the air conditioner is operating to reach the target (set) temperature. In this case, please wait until the room temperature rises to within 2°C of the set temperature and then change the set temperature.

**Details of display on the indoor unit**  
The Operation Indicator lamps at the right side of the indoor unit indicate the operation state.



- Operation Indicator
- Lighting
- Blinking
- Not lighting

**Operation Indicator lamp**

Indication	Operation state	Difference between target temperature and room temperature
	This shows that the air conditioner is working to reach the target temperature. Wait until the target temperature is obtained.	About 2°C or more
	This shows that the room temperature is approaching the target temperature.	About 2°C or less
	In case of indoor air purifier (with HEPA Filter) or Purification (FOR MULTI SYSTEM AIR CONDITIONER (type 1)).	—

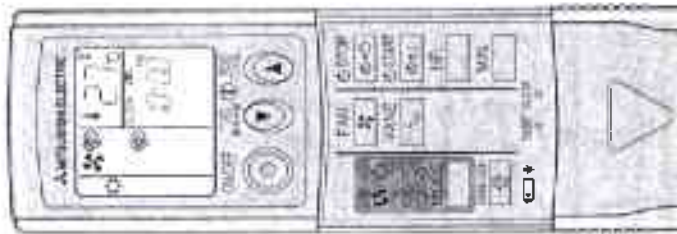
## Description of "AUTO RESTART FUNCTION"

- These units are equipped with an auto restart function. When the main power is turned on, the air conditioner will start operation automatically in the same mode as the one set with the remote controller just before the shutdown of the main power.
- If the unit was set to off with the remote controller before the restart of the main power, it will remain stopped even after the main power is turned on.
- If the unit was in the emergency operation before the shutdown of the main power, it will start operation at main power on in the same mode as the one set with the remote controller before the emergency operation.
- If the unit is operated in "I FEEL..." mode before power failure, the operation mode (COOL, DRY or HEAT) is not stored in the memory. When the main power is turned on, the unit decides the operation mode by the initial room temperature at restart and starts operation again.





# MANUAL OPERATION (COOL, DRY, HEAT)



To select the "COOL", "DRY" or "HEAT" mode:

- 1 Press the **MODE** button.
- 2 Select the operation mode by pressing the **MODE** button.  
Each time the button is pressed, the operation mode is changed in sequence: **COOL** → **FEEL** → **COOL** → **DRY** → **HEAT**

To stop operation:

- Press the **ON/OFF** button.

After the operation mode is set over, the operation starts in the mode set previously from the next time by simply pressing the **ON/OFF** button.

When the set temperature is to be changed:

- Press the **TEMP. UP/DOWN** button to lower the temperature.
- Or, press **TEMP. UP/DOWN** button by about 1°C.
- Press the **TEMP. UP/DOWN** button 10 times to raise the temperature.
- Or, press **TEMP. UP/DOWN** button by about 1°C.

In "COOL" operation

- When the outside temperature is low, the fan of the outdoor unit turns on and off frequently to maintain sufficient cooling capacity.

In "DRY" operation

- The temperature control (temperature setting) cannot be done.
- The room temperature is slightly lowered in the operation mode.

Note:

When the ambient temperature is too high, the room temperature may not reach the set temperature since the unit operates to cool under high load.

The details of the display on the indoor unit are explained on page 5.

## CONVENIENT INFORMATION

### "COOL" For effective cooling

- 1 Close the window and pull down blinds. Sunlight is reduced and cooling efficiency increases
- 2 Paste a heat shield film (generally available) on the window. Heat entering the room is reduced.
- 3 Block the outdoor unit from direct sunlight. This saves energy.



"HEAT" Comfortable warmth depends on the temperature difference between the indoor and the outdoor.

It is recommended that the set temperature in the heating operation does not differ from the outdoor temperature too much. Though there is a seasonal difference, as a reference, a set temperature between about 22°C and 24°C is most suitable.

"DRY" The humidity at which people feel comfortable

When air contains too much moisture, people feel clammy. Humidity is related to temperature unit unit. The humidity at which people feel comfortable is 60%~75% RH in summer, 55%~70% RH in winter.

## Description of "AUTO RESTART FUNCTION"

- Refer to page 6

## INFORMATION FOR MULTI SYSTEM AIR CONDITIONER (OUTDOOR UNIT : MXZ SERIES)

Multi system air conditioner (Outdoor unit:MXZ series)can connect two or more indoor units with one outdoor unit.According to the capacity,two or more units can operate simultaneously.

- When you try to operate two or more indoor units with one outdoor unit simultaneously, and for the cooling and the other for heating, the operation mode of the indoor unit that operates earlier is selected. The other indoor units that will start the operation later cannot operate (indicating an operation status (flashes to the table of Operation Indicator lamp on page 6.)

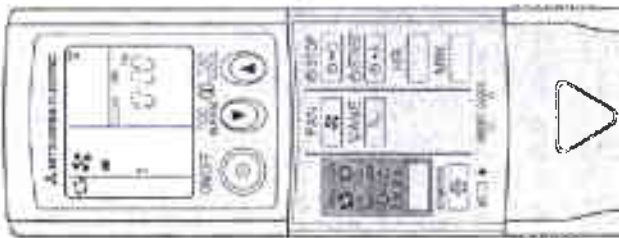
In this case, please set all the indoor units to the same operation mode.

- When indoor unit finishes the operation while the de frosting of outdoor unit is being done, it takes a few minutes (plus 10 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm, or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant/contraction flows into it.



# AIR FLOW VELOCITY AND DIRECTION ADJUSTMENT

AIR FLOW velocity and direction can be selected as required.



To change the AIR FLOW velocity, press the **FAN** button.

Each time the button is pressed, the fan speed is changed in sequence: **Low** → **Med** → **Hi** → **(AUTO)**

- Use the **MODE** button to switch the room mode.
- If the operating sound in the air conditioner operates year-round, use the **SWING** button.

To change the AIR FLOW blowing direction vertically, press the **VANE** button.

Each time the button is pressed, the angle of the horizontal vane is changed in sequence: **1** → **2** → **3** → **4** → **5** → **1** (SWING) → **(AUTO)**

### SWING OPERATION

Use the swing operation for the air flow to reach all corners of the room.

### Recommended horizontal vane range

Use the **(AUTO)** position usually.

Use **1** or **2** in the **COOL** or **DRY** mode and use positions **3** to **5** in the **HEAT** mode when adjusting to your requirements.



### Note:

- In the cooling operation, when the air conditioner is operated with setting the horizontal vane to 4 or 5 for 1 hour, the AIR FLOW direction is automatically set in position 1 to prevent condensed water from dripping.
- Adjust the vertical AIR FLOW direction using the remote controller. If the horizontal vane is moved manually, it may cause trouble.
- In heating operation, if the air flow temperature is too low or when defrosting is being done, the horizontal vane position is set to position 1.

### To change the horizontal direction of the AIR FLOW

For the floor standing unit

- Change the direction of the vertical vane manually



For the ceiling suspended unit

- Change the direction of the vertical vane manually



Adjust the vane before operation starts.

Since the horizontal vane moves automatically, your fingers may be caught.

## AUTO AIR FLOW DIRECTION CONTROL OPERATION

When the **AUTO** mode is selected with the **(AUTO)** button, the position of the horizontal vane is automatically set to correspond to the operating mode for effective operation.

For the floor standing unit

### (1) COOL DRY

- The air is blown out upwards.



### (2) HEAT

- When the air flow temperature is too low, the air is blown out horizontally.



- When the air flow temperature rises, the air is blown out horizontally.



For the ceiling suspended unit

### (1) COOL DRY

- The air is blown out horizontally.



### (2) HEAT

- When the air flow temperature is too low, the air is blown out horizontally.

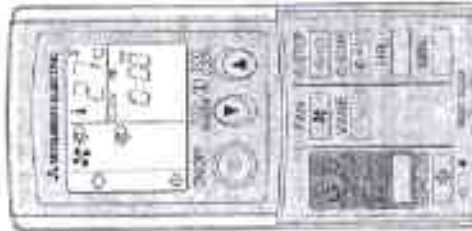


- When the air flow temperature rises, the air is blown out downwards.



## ECONO COOL OPERATION

Use this operation when you want to be comfortable in **COOL** mode even with energy saved.



Perform the following operations while the unit is operating.

Press the **(ECONO COOL)** button.

When the **(ECONO COOL)** operation is selected in **COOL** mode, the air conditioner performs swing operation in various cycle according to the temperature of air conditioner. Also, SET TEMPERATURE is automatically set (ITD) higher than **COOL** mode.

To release the **ECONO COOL** operation:

Press the **(ECONO COOL)** button again.

- **ECONO COOL** operation is available only in **MANUAL COOL** mode.
- When the **(VANE)** button is pressed or the operation mode is changed during the **ECONO COOL** operation, **ECONO COOL** operation is released.
- The **(FAN)** button, the **(ON)** button and **OFF/CFM** timer are available.

### What is "ECONO COOL"?

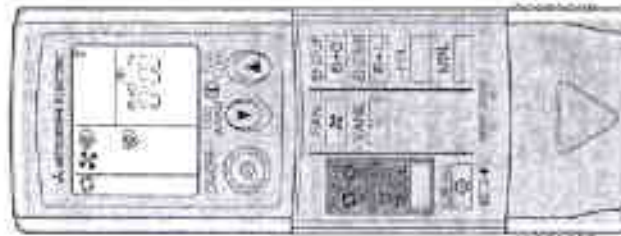
Swing air flow (change of air flow) makes you feel cooler than constant air flow. So, even though the set temperature is automatically set 2°C higher, it is possible to operate cooling operation with keeping comfort. As a result, energy can be saved.





# TIMER OPERATION (ON/OFF TIMER)

It is convenient to set the timer for the time when you go to bed, when you get home, when you get up, etc.



## TIMER

### How to set the ON timer

- 1 Press the **ON** button during operation. Each time the button is pressed, the ON timer mode alternates between ON and OFF.
- 2 Set the time of the timer using the **▲** and **▼** buttons. Each time the **▲** button is pressed, the set time is counted up by 1 hour; each time the **▼** button is pressed, the set time is counted up by 10 minutes.

### To release the ON timer:

- Press the **OFF** button.

### How to set the OFF timer

- 1 Press the **OFF** button during operation. Each time this button is pressed, the OFF timer mode alternates between ON and OFF.
- 2 Set the time of the timer using the **▲** and **▼** buttons. Each time the **▲** button is pressed, the set time is counted up by 1 hour; each time the **▼** button is pressed, the set time is counted up by 10 minutes.

### To release the OFF timer:

- Press the **ON** button.

### Programming timer operation

The ON timer and the OFF timer can be used in combination. The limit of the set time that is indicated (but will operate first, **ON** mode) indicates the order of timer operations.

- If the current time has not been set, the timer operation cannot be used.

### Note:

If the main power is turned off or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled. As these models are equipped with the auto-restart function, the air conditioner should start operating at the same time that a power trip occurred.

# WHEN THE AIR CONDITIONER IS NOT GOING TO BE USED FOR A LONG TIME

When it is not going to be used for a long time:

- 1 Perform FAN operation for 3 or 4 hours to dry the inside of the air conditioner. To perform FAN operation, set to the highest temperature in the MANUAL COOL OPERATION mode. (Refer to page 7.)



- 2 Turn off the breaker.



### Caution:

Turn off the breaker when the air conditioner is not going to be used for a long time. Dirt may collect and may cause a fire.

- 3 Remove the batteries from the remote controller.



### Caution:

To prevent liquid leakage, take out all batteries when the remote controller is not going to be used for a long time.

## MAINTENANCE

### Before starting maintenance

- Turn off the breaker.



### Caution:

When the unit is to be cleaned, switch it off and turn off the breaker. Since the fan rotates at high speed during operation, it may cause an injury.

When the air conditioner is to be used again:

- 1 Clean the air filter and install it in the indoor unit. (Refer to page 10 for cleaning instructions.)



- 2 Check that the air inlet and outlet of the indoor/outdoor unit are not blocked.



- 3 Check that the earth is connected correctly.

### Caution:

Earth the unit.

Do not connect the earth to a gas pipe, water pipe, lightning rod or the earth of a telephone. If the earthing is incorrect, it may cause an electric shock.

### Cleaning the indoor unit

- Clean the unit using a soft dry cloth.



If the dirt is noticeable, wipe the unit with a cloth soaked in a solution of mild detergent diluted in lukewarm water. Do not use abrasive, benzene, polishing powder, detergent and insecticide. The unit may be damaged.



# CLEANING THE AIR FILTER/DEODORIZING FILTER (OPTION)

**Cleaning the air filter (about once every 2 weeks)**

- 1 Remove the air filter.
  - Pull the air filter knob forward.



(If foam is deodorizing or air cleaning filter (CAF100M), please remove it before cleaning the air filter.)

- 2 Remove dirt from the air filter using a vacuum cleaner or by washing the filter with water.
  - If dirt is conspicuous, wash the filter with a solution of detergent in lukewarm water.
  - If hot water (50°C or more) is used, the filter may be deformed.



- 3 After washing with water/lukewarm water, dry the air filter well in the shade.
  - Do not expose the air filter to direct sunlight or heat from a fire when drying it.



- 4 Install the air filter.
  - Set the air filter knob.



**Cleaning the deodorizing filter (about once every 2 weeks)**

- 1 Remove the air filter and the deodorizing filter together. Then separate the deodorizing filter (Gray sponge type) from the air filter.
  - This deodorizing filter is harmless to people. However, to keep its effectiveness, be sure to hold the frame and not to touch the surface of the filter with your hand.



- 2 Soak the filter together with its frame in lukewarm water for about 15 minutes.
  - If dirt is conspicuous, use a solution of detergent in lukewarm water.
  - If hot water (50°C or more) is used, the filter may be deformed.
  - Do not use a scrubbing brush or sponge.
  - This may damage the surface of the filter.
  - Do not use a chlorine detergent.



- 3 After washing with water/lukewarm water, dry the deodorizing filter well in the shade.
  - Do not expose the deodorizing filter to direct sunlight or heat from a fire when drying it.



- 4 Attach the deodorizing filter to the air filter. (Place the catch into the hole of the air filter for the security.) Then install both of them to the body.
  -



# REPLACEMENT OF THE DEODORIZING FILTER (OPTION) AIR CLEANING FILTER (OPTION)

When the capacity is lowered because of dirt, etc., it is necessary to replace the deodorizing/air cleaning filter.

**Deodorizing filter replacement (about once a year)**

- 1 Remove the air filter and the deodorizing filter together.
  -



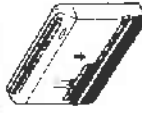
- 2 Separate the deodorizing filter (Gray sponge type) from the air filter.
  -



- 3 Replace a new deodorizing filter and attach it to the air filter. (Place the catch into the hole of the air filter for the security.)
  -



- 4 Install the air filter and the deodorizing filter together.
  -



**Deodorizing filter**

- Cleaning is necessary about once every 3 weeks. However, if dirt is conspicuous, clean more often.
- When the colour of the filter is not restored even if the filter is washed as the procedure shown in the left picture, replace the deodorizing filter or wash the filter box with black paint. (Standard interval for the filter replacement is about 1 year.)

**Air cleaning filter replacement (about once every 4 months)**

- 1 Remove the air filter and the air cleaning filter together.
  -



- 2 Separate the air cleaning filter (White bellows type) from the air filter.
  -



- 3 Replace a new air cleaning filter and attach it to the air filter. (Place the catch into the hole of the air filter for the security.)
  -



- 4 Install the air filter and the air cleaning filter together.
  -



**Air cleaning filter**

- If the air cleaning filter is damaged, it may lower the unit's capacity or disturb some operation at the air outlet.
- The air cleaning filter is disposable. The standard usable term is about 4 months. However, if the colour of the filter turns to dark brown, replace the filter at once.

**Optional parts** Optional parts are available from your local dealer.

Part name	Model
Deodorizing filter	MAC-1700CF
Air cleaning filter	MAC-1200FT





## BEFORE CONTACTING THE SERVICE REPRESENTATIVE, CHECK THE FOLLOWING AGAIN

Question	Check points
The air conditioner cannot be operated for about 3 minutes when restarted	<ul style="list-style-type: none"> <li>Is the breaker turned on?</li> <li>Is the fuse blown?</li> <li>Is the ON timer set? (Page 9)</li> <li>Is the temperature setting correct? (Page 7)</li> <li>Is the filter clean? (Page 10)</li> <li>Are there any obstacles blocking the air inlet or outlet of the indoor or outdoor unit?</li> <li>Is a window or door open?</li> <li>Is the filter clean? (Page 10).</li> </ul>
The room cannot be cooled or heated sufficiently.	<ul style="list-style-type: none"> <li>Are the batteries exhausted? (Page 6)</li> <li>Is the polarity (+, -) of the batteries correct? (Page 5)</li> <li>Are any bubbles on the remote controller or other electronic appliances being pressed?</li> </ul>
The air from the indoor unit smells strange	<ul style="list-style-type: none"> <li>Does the air conditioner start operating again?</li> </ul> <p>If the air conditioner had operated before the power outage, as these models are equipped with an auto restart function, the air conditioner should start operating again. (Refer to Description of "AUTO RESTART FUNCTION" on page 5.)</p>
When a power failure occurs	<p>Even if the above items are checked, when the air conditioner does not recover from the trouble, stop using the air conditioner and consult your dealer.</p>

### In the following cases, stop using the air conditioner and consult your dealer.

- When water leaks or drops from the indoor unit.
- When the left operation indicator lamp blinks.
- When the breaker trips frequently.
- The remote control signal may not be received in a room where an electronic ON/OFF type fluorescent lamp (inverter type fluorescent lamp, etc.) is used.
- Operation of the air conditioner may interfere with radio or TV reception in areas where the reception is weak.
- An amplifier may be required for the affected device.
- When thunder is heard, stop operation and disconnect the power supply plug and/or turn off the breaker. Otherwise, the electrical parts may be damaged.

## WHEN YOU THINK THAT TROUBLE HAS OCCURRED

Question	Answer (not malfunction)
The air conditioner cannot be operated for about 3 minutes when restarted	<ul style="list-style-type: none"> <li>This protects the air conditioner according to the instructions from the microprocessor. Please wait.</li> <li>This trouble is generated by the expansion/contractor of the iron pipe, etc. due to change in temperature.</li> </ul>
Cracking sound is heard	<ul style="list-style-type: none"> <li>The air conditioner may suck in an odor adhering to the wall, carpet, furniture, cloth, etc. and blow it out with the air.</li> <li>When the outside temperature is low, the fan may not operate to maintain sufficient cooling capacity.</li> </ul>
The air from the indoor unit smells strange	<ul style="list-style-type: none"> <li>This is the sound of refrigerant flowing inside the air conditioner.</li> <li>This is the sound of compressed water flowing in the heat exchanger.</li> <li>This is the sound of the heat exchanger defrosting.</li> <li>This sound is heard when the outside air is absorbed from the drain pan in running on the range hood or the ventilation fan and that makes water flow in the drain hose spout out. This sound is also heard when the outside air blows into the drain pan in case the outside air is strong.</li> </ul>
The fan of the indoor unit does not rotate even though the compressor is running. Even if the fan starts to rotate, it stops soon	<ul style="list-style-type: none"> <li>When a vent (soon fan) or a gas cooker is used in a room, the cooling load increases, resulting in an insufficient cooling effect.</li> <li>When the outside air temperature is high, the cooling effect may not be sufficient.</li> <li>This is the switching sound in turning on/off the fan or the compressor.</li> </ul>
The sound of water flowing is heard	<ul style="list-style-type: none"> <li>The cool air from the air conditioner rapidly cools moisture in the air inside the room and it turns into mist.</li> <li>During COOL and DRY operations, pipe or tray overflowing, water may be cooled and this causes water to condense.</li> <li>In the heating operation, the defrosting operation makes water frozen on the outdoor unit heat and drip occur.</li> <li>In the heating operation, water condensed at the heat exchanger drips down.</li> </ul>
The room cannot be cooled sufficiently.	<ul style="list-style-type: none"> <li>Please wait as the air conditioner is preparing to blow out warm air.</li> </ul>
Mechanical sound is heard from the indoor unit	<ul style="list-style-type: none"> <li>Defrosting of the outdoor unit is being done (Defrosting operation). Since this is completed in 10 minutes, please wait. (When the external temperature is too low and humidity is too high, frost is formed.)</li> <li>This is the sound when the flow of refrigerant inside the air conditioner is switched.</li> </ul>
Water leaks from the outdoor unit	<ul style="list-style-type: none"> <li>These models are equipped with an auto restart function. When the main power is turned off without stopping the air conditioner with the remote controller and is turned on again, the air conditioner will start operation automatically in the same mode as the one set with the remote controller just before the shutdown of the main power.</li> <li>When the air conditioner is operated in COOL or DRY mode, if the room temperature continues with air blowing down for 1 hour, the direction of the air flow is automatically set to position 1 to prevent condensed water from dripping.</li> <li>In the heating operation, if the air flow temperature is too low or when defrosting is being done, the horizontal vane position is automatically set to position 1.</li> </ul>
The room cannot be heated sufficiently.	<ul style="list-style-type: none"> <li>When the outside temperature is low, the heating effect may not be sufficient sufficiently.</li> </ul>





# INSTALLATION, RELOCATION AND INSPECTION

## Installation place

- Avoid installing the air conditioner in the following places.
- Where flammable gas could leak.

### Caution

Do not install the unit where flammable gas could leak. If gas leaks and collects around the unit, it may cause an explosion.

- Areas where it is much machine oil.
- Dirty places such as the staircase.
- Where outdoor gas is gathered such as a hot spring.
- Where oil is released or where the tank is filled with oily smoke.
- Where there is high frequency of wireless equipment.

### WARNING

If the air conditioner operates but does not cool or heat (depending on model) the room, consult your dealer since there may be a refrigerant leak. Be sure to ask the service representative whether there is refrigerant leakage or not when repairs are carried out.

The refrigerant charged in the air conditioner is safe.

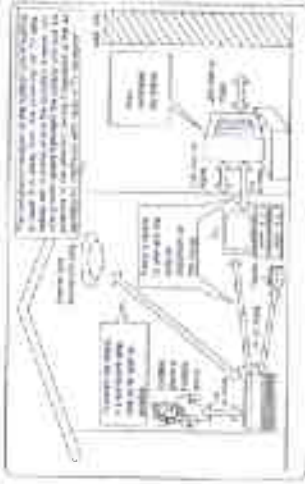
Refrigerant normally does not leak, however, if refrigerant gas leaks indoors, and comes into contact with the fire of a fan heater, space heater, stove, etc., harmful substances will be generated.

## Electrical work

- Provide an exclusive circuit for power supply of the air conditioner.
- Be sure to observe the breaker capacity.

### WARNING

The customer should not install the unit. If the unit is installed incorrectly, fire, electric shock, injury due to the unit falling, water leakage, etc. may result.



## SPECIFICATIONS

### Disposal

- To dispose of this product, consult your dealer.

If you have any questions, consult your dealer.

### Guaranteed operating range

	Indoor	Outdoor
Cooling	Upper limit 36°C DB 33°C WB	43°C DB
	Lower limit 21°C DB 15°C WB	31°C DB
Heating	Upper limit 27°C DB	24°C DB 19°C WB
	Lower limit 20°C DB	10°C DB -11°C WB

### Caution

- Earth the unit.

Do not connect the earth to a gas pipe, water pipe, lightning rod or the earth of a telephone. If the earthing is incorrect, it may cause an electric shock.

- Install an earth leakage breaker depending on the place where the air conditioner is to be installed (humid place, etc.) if the earth leakage breaker is not installed, it may cause an electric shock.

## Inspection and maintenance

- When the air conditioner is used for several seasons, the capacity may be lowered due to dirt inside the unit.
- Depending upon the conditions of use, an odor may be generated or dirt, dust, etc. may prevent proper drainage.
- It is recommended that the unit be inspected and maintained (if needed) by specialist in addition to normal maintenance. Consult your dealer.

## Operating sound considerations

- Do not put an object around the air outlet of the outdoor unit. It may cause lowering of capacity or increasing of operating sound.
- If abnormal sound is heard during operation, consult your dealer.

## Relocation

- When the air conditioner is to be removed or reinstalled because of rebuilding, moving, etc., special techniques and work are required.

### WARNING

Repair or relocation should not be done by the customer. If this is done incorrectly, it may cause a fire, electric shock, injury from the unit falling, water leakage, etc. Consult your dealer.



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