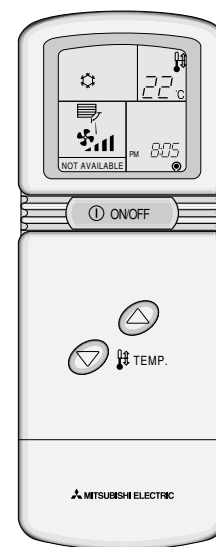


Mitsubishi Electric Building Air Conditioning Control System

Wireless Remote Controller PAR-FL31MA



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INSTRUCTION BOOK

- Read this manual thoroughly before using the remote controller.
 - For those who carry out the installation work.
- After completing all the work, explain how to operate the remote controller to the customer referring to this manual, then hand the manual over to him.

ANWEISUNGSHANDBUCH

- Lesen Sie dieses Handbuch gründlich durch, bevor Sie die Fernbedienung benutzen.
- Hinweis für die mit der Installation beauftragten Personen:
Erläutern Sie dem Kunden nach Abschluß der Installationsarbeiten anhand dieses Handbuchs den Gebrauch der Fernbedienung und händigen Sie das Handbuch danach dem Kunden aus.

MANUEL D'UTILISATION

- Veuillez lire attentivement le présent manuel avant d'utiliser la télécommande.
- Pour les personnes chargées des travaux d'installation.
Lorsque les travaux sont terminés, expliquer le fonctionnement de la télécommande au client en se reportant au présent manuel puis lui remettre le manuel.

INSTRUCTIEHANDLEIDING

- Lees deze handleiding zorgvuldig door voordat u de afstandsbedieningseenheid gebruikt.
- Voor de installateur:
Wanneer u klaar bent, gelieve de klant de werking van de afstandsbedieningseenheid met gebruik van deze handleiding uit te leggen. Overhandig de handleiding daarna aan de klant.

LIBRETTO ISTRUZIONI

- Prima di utilizzare il telecomando leggere attentamente il presente manuale.
- Per gli addetti all'installazione:
Dopo aver completato il lavoro, spiegare al cliente il funzionamento del telecomando facendo riferimento al presente manuale, che va quindi consegnato al cliente.

LIBRO DE INSTRUCCIONES


- Lea este manual con detenimiento antes de utilizar el controlador remoto.
- Para los técnicos instaladores:
Una vez terminada la instalación, explique al cliente cómo utilizar el controlador remoto con ayuda del presente manual. A continuación, entréguele el manual.


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1. Safety Precautions

- Be sure to read these Safety precautions thoroughly and install the remote controller correctly.
- The following two symbols are used to denote dangers that may be caused by incorrect use. They are classified according to the degree of danger.

 **WARNING:** This symbol denotes what could lead to serious injury or death if you misuse the controller.

 **CAUTION:** This symbol denotes what could lead to personal injury or damage to your property if you misuse the controller.

- After reading this manual, be sure to forward it, together with the operation manual accompanying the indoor unit, to the user.
Together with the operation manual for the indoor unit, this manual should be kept in a place where it can be referred to at anytime by the user. When the user changes, be sure to forward the manual to the final user.

WARNING

- **Check the installation conditions.**
 - In order to prevent the controller falling down, make sure that it is installed in a place strong enough to withstand its weight.
- **Do not dispose of the controller by yourself.**
 - Consult your dealer in case of disposal.
- **Stop operation when an abnormality occurs.**
 - Continuing to operate under abnormal conditions can result in breakdown, electric shock or fire. When an abnormality occurs (burning smell etc.), stop operations, turn off the power switch and consult your dealer.
- **Never modify or repair the controller by yourself.**
 - Any deficiency caused by your modification or repair may result in an electric shock or fire. Consult your dealer about repairs.
- **Stop operation if the operation lamp on the controller's receiver blinks or if an abnormality occurs.**
 - Leaving the controller in these conditions can lead to fire or breakdown. Report such conditions to your dealer.
- **Never allow the alkaline batteries to short-circuit. Never disassemble, heat or place them in fire.**
 - Doing so can cause the strong alkaline liquid to leak and possibly enter your eyes or cause the batteries to explode or heat up, resulting in personal injuries, burning or mechanical breakdowns. If strong alkaline liquid comes in contact with your skin or clothes, wash it off with clean water. If it gets in to your eyes, wash them with clean water and consult a doctor immediately.

CAUTION

- **Do not drop the controller.**
 - Doing so may cause the case to crack and may disable control.
- **Do not place any dangerous substances near the controller.**
 - Do not install in any place exposed to leakage of flammable gas. Flammable gases accumulated around the controller may cause fire or an explosion.
- **Do not wash with water.**
 - Doing so may cause an electric shock or breakdown.
- **Do not touch any control button with wet hands.**
 - Doing so may cause an electric shock or breakdown.
- **Do not disassemble the controller.**
 - Contact with internal circuitry may cause fire or breakdown.
- **Do not use in special environments.**
 - Using in places exposed to oil (including machine oil), steam or sulfur gas can reduce the performance or can cause damage to the components.
- **Do not spray insecticide or other flammable sprays.**
 - Do not place flammable sprays near the controller or spray directly at the controller. Doing so may result in fire or explosion.
- **Do not wipe the controller with benzine, thinner or chemical cloths etc.**
 - Doing so may cause discoloration or breakdowns. If the controller becomes extremely dirty, dampen a cloth with water-diluted neutral detergent and wipe the controller with it, then wipe with a dry cloth.
- **Do not press any control button with a sharp object.**
 - Doing so may cause an electric shock or breakdown.
- **Keep the temperature within the specified range.**
 - Use the controller within the specified operating temperature range. Using in temperature outside that range can cause serious breakdowns.
 - For the specified operating temperature range, refer to the specifications given on the operation manual.
- **Do not use for other special purposes.**
 - The controller has been designed for use with the MITSUBISHI Electric Building Air Conditioning Control System only. Do not use for other purposes such as controlling other air conditioners. Doing so may result in breakdown.
- **Incorrect use of batteries can cause liquid leakage, explosion or heating and may result in breakdown or personal injury. Adhere to the following.**
 - (1) Do not recharge the batteries.
 - (2) Insert the batteries in the correct direction.
 - (3) Do not mix a new battery with an old battery or batteries of different types.
 - (4) Remove the batteries immediately when they have run out.

2. Checking the Contents of the Package

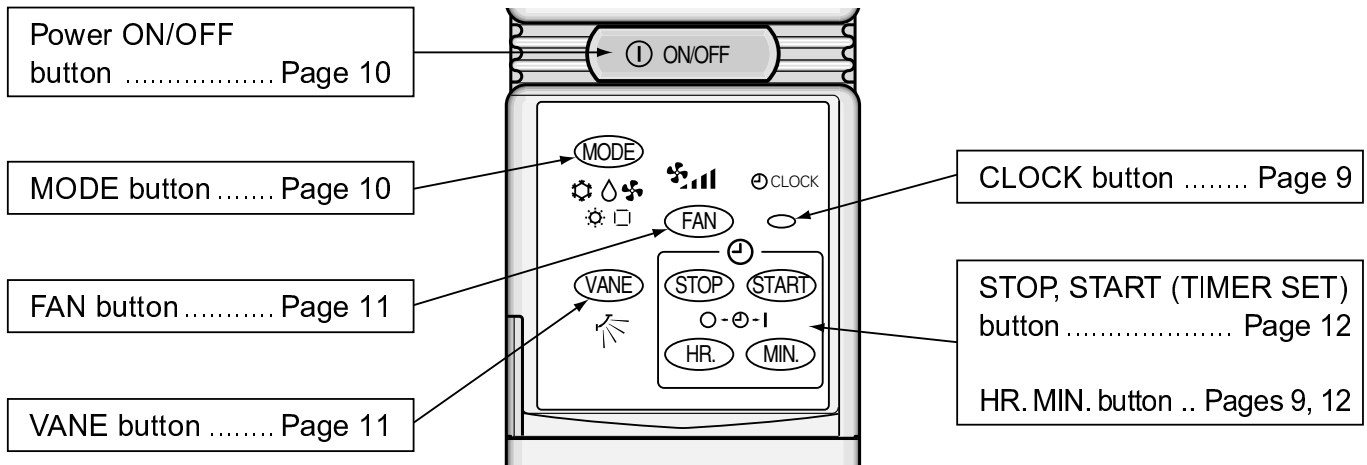
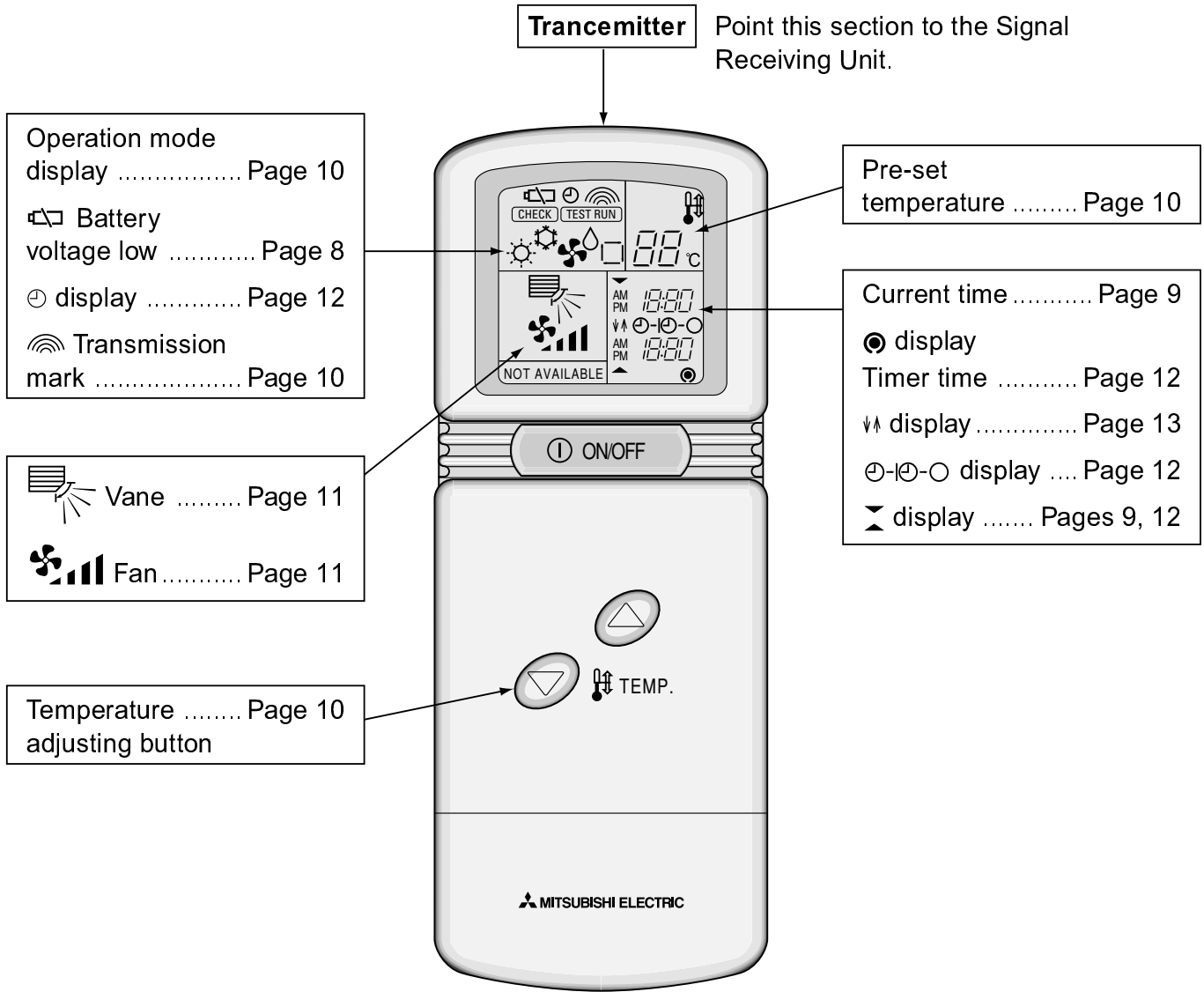
Check that the box contains the following parts in addition to this manual.

- | | |
|----------------------------------|-----|
| 1. Alkaline batteries (size AAA) | × 2 |
| 2. Remote controller holder | × 1 |
| 3. Wood screws | × 2 |
| 4. Wireless Remote Controller | × 1 |
| 5. Plate | × 1 |

3. Name of Component

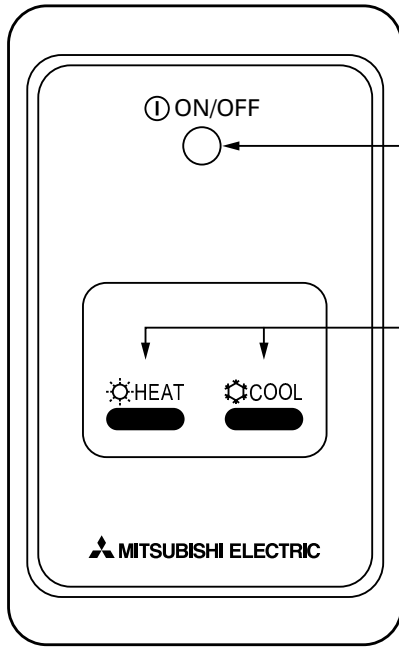
• Wireless Remote Controller

* The following example is for explanatory purposes only and shows the operating section when all the LCD displays are lit. It differs from the actual display. The LCD will remain dark while the remote controller is not in operation.



When the Cover is Open.

- **Signal Receiving Unit (Sold separately)**



ON/OFF lamp (lit when unit is operating; unlit when unit is not operating)

Emergency operation

In cases where the remote control unit does not operate properly, use either the COOL or HEAT button on the wireless remote control signal receiver to toggle the unit on or off. On cooler only units, pushing the HEAT button toggles the fan on and off.

Pressing the COOL or HEAT button selects the following settings.

| | | |
|--------------------|------------|-------|
| Operation mode | COOL | HEAT |
| Preset temperature | 24 °C | 24 °C |
| Fan speed | High | High |
| Air Direction | Horizontal | Down |

Note:

The signals may not be received in rooms where inverter type fluorescent lamps are used. Consult your dealer when re-purchasing fluorescent lamps.

4. Before Operation

4-1. Setting the DIP-Switch

It is necessary to set the DIP switches before using this remote control unit.

- * The remote control unit will not operate properly unless the DIP switch settings are correct.
- * Customers should not perform the settings themselves, but rather should request that the settings be made during installation by qualified personnel.

DIP Switch Settings

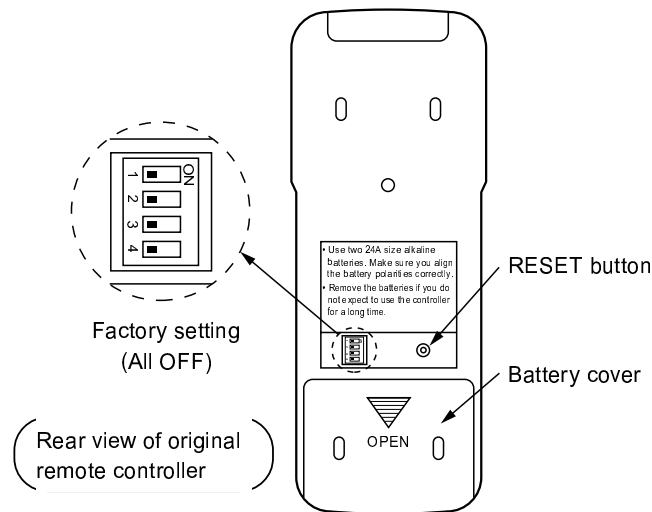
- ① Check the settings (fan speed, louver, etc.) of the indoor unit and the outdoor unit to which it is connected.
- ② Adjust the DIP switches on the back of the remote control unit as necessary.
(Refer to Table 1 and Figure 1)

Table 1

| SW | OFF | ON | Description |
|----|-------------------------------|---------------------------|--|
| 1 | AUTO mode is not supported | AUTO mode is supported | — |
| 2 | SWING (vane) is not supported | SWING (vane) is supported | Set to OFF on units which unsupported adjustable vane. |
| 3 | 4-stage fan speed | 2-stage fan speed | Set to OFF on units which unsupported fan speed control. |
| 4 | COOL/HEAT unit | COOL only unit | Set to OFF when SW1 is set to ON. |

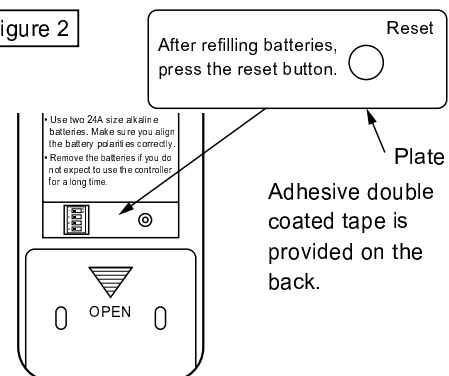
Factory settings are all OFF.

Figure 1



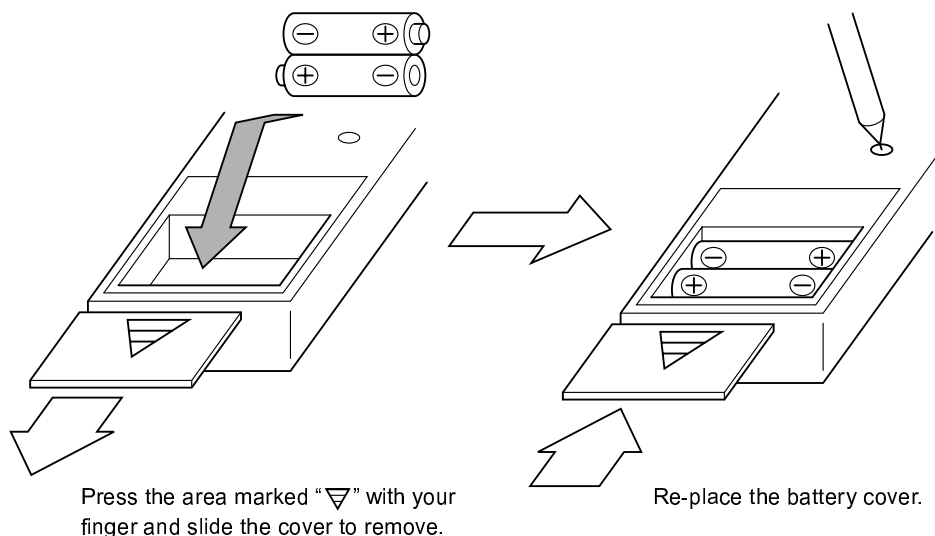
- ③ After making the DIP switch settings, remove the battery cover and insert two batteries.
- ④ Using a ball point pen or similarly pointed object, push the reset button and replace the battery cover.
- ⑤ Verify that the remote control unit operates properly. If it does not, check the indoor and outdoor units, then redo the DIP switch settings.
- ⑥ After verifying that the remote control unit operates properly, attach the protective plate over the dip switch.
(Refer to Figure 2.)
- ⑦ The DIP switch setting is now set up properly.

Figure 2



4-2. Inserting Batteries

- ① Remove the battery cover and insert the batteries.
- ② Replace the battery cover and press the reset button.



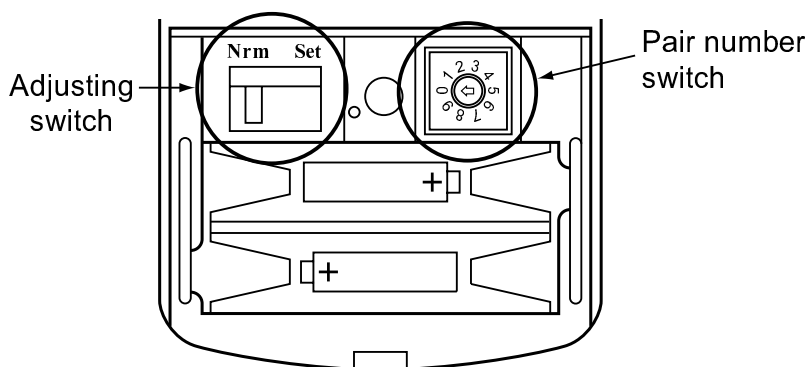
- All the LCD displays will light up for 3 seconds when the reset button is pressed.
- Be sure to press the reset button whenever the batteries are replaced.
- The controller may malfunction if the reset button is not pressed after the batteries have been replaced.

Batteries

- The batteries have run out when the "⏏" mark (battery voltage drop) appears, when the signals cannot reach the receiver of the air-conditioner or when the LCD becomes weak. In these cases, replace the batteries with new alkaline batteries (size AAA). (Make sure that both batteries are replaced.)
- Using manganese batteries will reduce the distance the signals can reach.
- Do not use rechargeable batteries (Ni-Cd).
- The life of alkaline batteries is approximately one year.
- Remove the batteries if the remote controller will not be used for a long time.

Note:

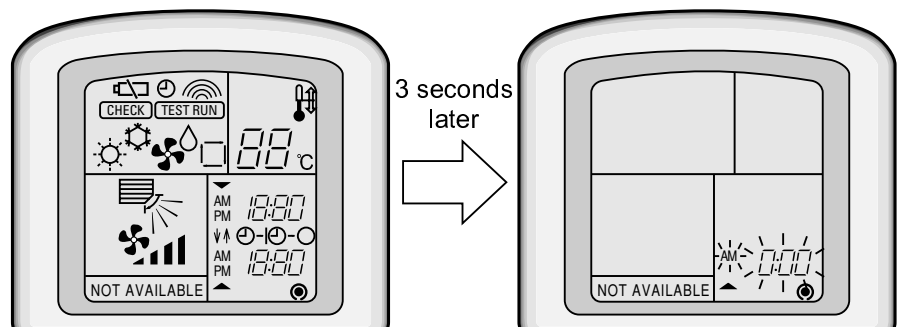
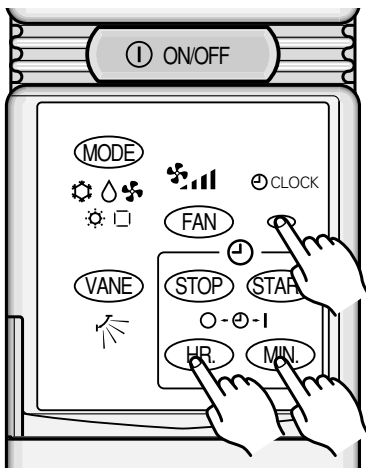
Do not change the settings on the adjusting switch and pair number switch when the battery cover is removed. Doing so will disable control.



Wireless remote controller operating section
(When the battery cover is removed)

4-3. Setting the Current Time

1. When using for the first time, following replacement of batteries or pressing the reset button:

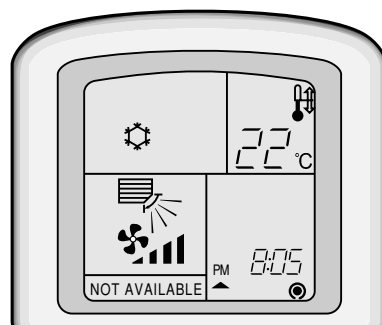
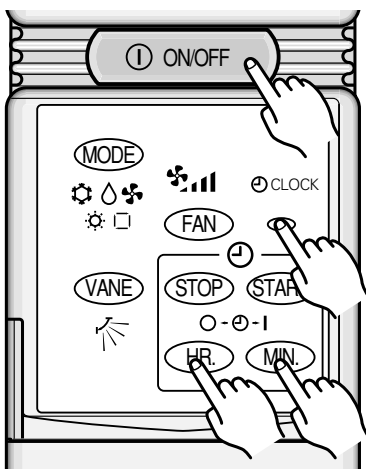


All the LCD displays will light up for three seconds, then “AM 0:00” starts to blink. After “AM 0:00” starts blinking, carry out the following procedure.

1. Press the HR. and MIN. buttons to adjust the time to current time.
2. Press the CLOCK button. The current time will blink and the “▲” display will disappear.

All the LCD displays will disappear in 10 seconds.

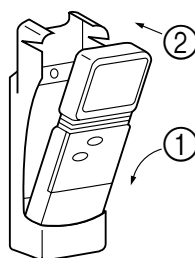
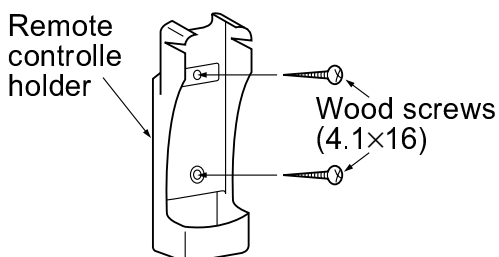
2. When changing the current time:



1. Press POWER ON/OFF button if the LCD displays are not on.
 2. Press the CLOCK button. Check that “▲” is displayed.
 3. Press the HR. and MIN. buttons to adjust the time to current time.
 4. Press the CLOCK button to complete the setting.
- * Even if the CLOCK button is not pressed, “▲” will disappear in one minute.

4-4. Installing the Remote Controller Holder

- To place the wireless remote controller on a wall, the remote controller holder must be installed as shown below.




How to Place the Controller in the Holder

- ① Slip the remote controller into the holder.
- ② From that position, push the controller towards the wall.

How to Remove the Controller from the Holder

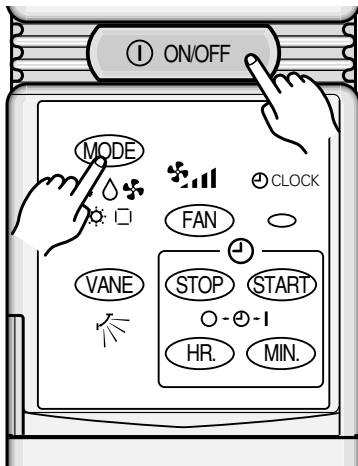
- Pull the upper part of the remote controller towards you.

5. Operating Method

- Each time signals are transmitted, the “” mark will appear.
- When the signals are received by the air-conditioner, a sound confirming reception will be heard. Transmit again if no such sound is heard.

5-1. Starting Operation

- Once the operation conditions are set, the same operations can be repeated just by pressing the POWER ON/OFF.



1. Press the POWER ON/OFF button.

Each time POWER ON/OFF is pressed, the operation will be switched between ON and OFF.

* No LCD displays will light up while the controller is turned off.

2. Press the MODE button.

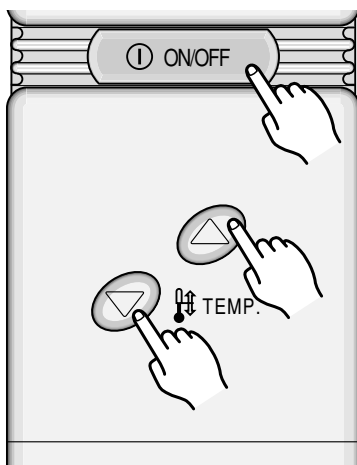
Each time the MODE button is pressed, the operation mode will switch as shown below.

→ COOL → DRY → <AUTO> → FAN → <HEAT> →

Note:

There are some indoor unit models which do not support AUTO or HEAT mode. In these cases the operation of the air-conditioner and the display of the remote control may differ.

5-2. Changing the Pre-set Temperature





If the LCD displays are not on, press the POWER ON/OFF button.

1. To increase the pre-set temperature.

Press the  button.

2. To reduce the pre-set temperature.

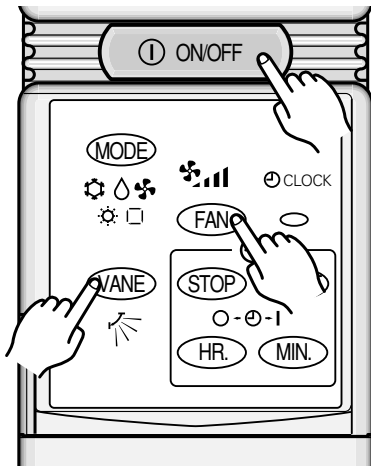
Press the  button.

- Each time the  or  button is pressed, the pre-set temperature changes in steps of 1 degrees Celsius.

Settable room temperature range

| | |
|-----------|-------------------------------------|
| COOL, DRY | 19 °C to 30 °C |
| HEAT | 17 °C to 28 °C |
| AUTO | 19 °C to 28 °C |
| FAN | No temperature setting can be made. |

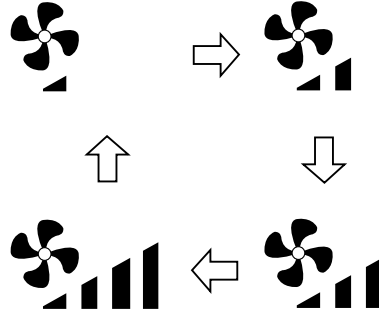
5-3. Changing the Fan Speed and Direction



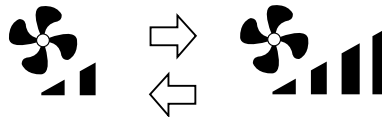
If the LCD displays are not on, press the **POWER ON/OFF** button.

1. To Change the Fan Speed

- Press the **FAN** button and the fan speed will change.
For 4-stage speed:

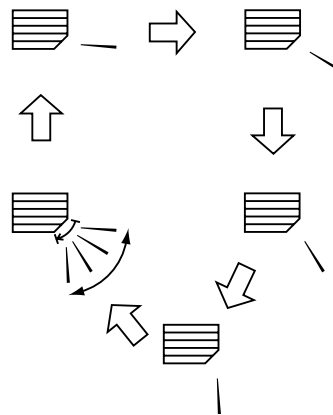


For 2-stage speed:

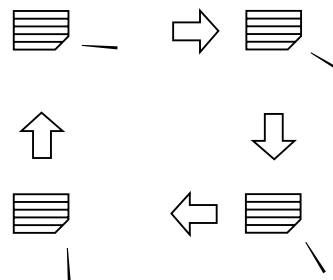


2. To Change the Direction

- Press the **VANE** button and the flap (vane) will move vertically.
For Swing:



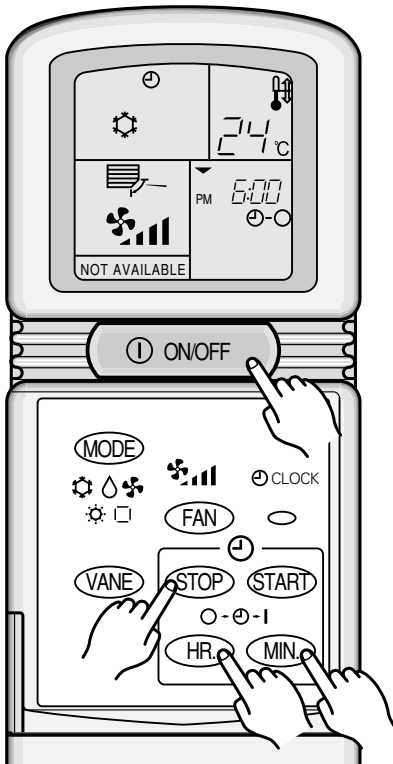
For no swing:



Note:

There are some indoor unit models which do not feature fan speed or swing. In these cases the operation of the air-conditioner and the display of the remote control may differ.

5-4. Setting the Timer



Stop Time Setting

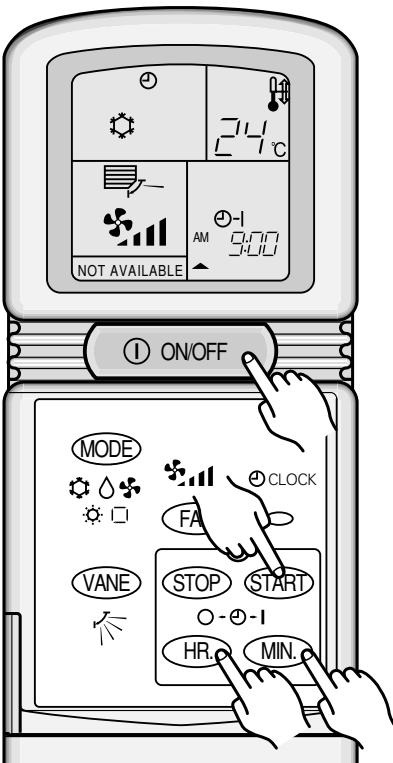
The air-conditioner stops operation when the pre-set time is reached. (The time can be set in steps of ten minutes.)

e.g. To make the operation stop at 6:00 pm.

1. If the LCD displays are not on, press the **POWER ON/OFF** button.
2. Press the **STOP** button (TIMER SET).
 - Check that “ $\odot \rightarrow \circ$ ” and “ \blacktriangledown ” are displayed.
 - To cancel, press the STOP button once again.
3. Press the **HR. and MIN. buttons**.
 - Adjust the displayed time to 6:00 pm.
 - When “ \blacktriangledown ” is not displayed, time setting cannot be carried out. In this case, press the STOP button again to cause “ \blacktriangledown ” to be displayed.

When the time is set, the Stop Timer setting is completed.

- When the Stop Timer is set, the set time will be displayed instead of the current time.
- During the setting of Stop Timer, “ \odot ” will be displayed but “ \odot ” will not be displayed.



Start Timer Setting

The air-conditioner stops operation when the pre-set time is reached. e.g. To cause the operation to start at 9:00 am.

1. If the LCD displays are not on, press the **POWER ON/OFF** button.
2. Press the **START** button (TIMER SET).
 - Check that “ $\odot \rightarrow |$ ” and “ \blacktriangle ” are displayed.
 - To cancel, press the START button once again.
3. Press the **HR. and MIN. buttons**.
 - Adjust the displayed time to 9:00 am.
 - When “ \blacktriangle ” is not displayed, time setting cannot be done. In that case, press the START button again to cause “ \blacktriangle ” to be displayed.

When the time is set, the Start Timer setting is completed.

- When the Start Timer is set, the set time will be displayed instead of the current time.
- During the setting of Start Timer “ \odot ” will be displayed but “ \odot ” will not be displayed.

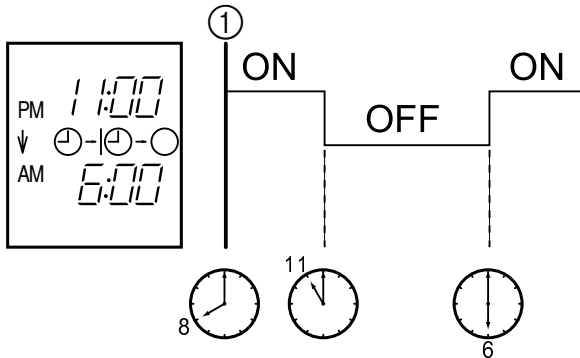
Note:

- The operation mode, pre-set temperature and the fan speed will be displayed during Start Timer operation, but the air-condition will not start until the pre-set start time is reached.
- The blowout direction cannot be changed once the Start Timer setting is completed.

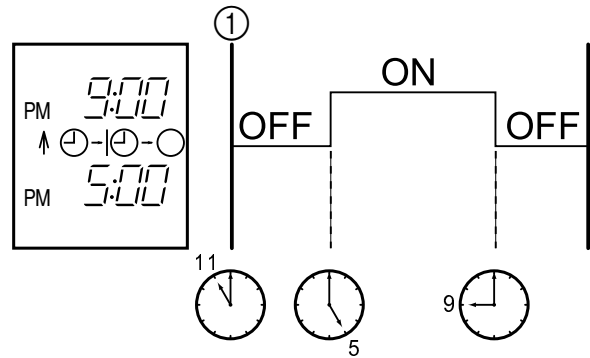
Program Operation

- Program operation can be used by carrying out Start Timer Setting and Stop Timer Setting one after the other.
- In cases where the pre-set times for Stop Timer and Start Timer are the same, program operation can be used by pressing the STOP and START (TIMER SET) buttons one after the other.
- The timers will come into effect in the order of the pre-set times.
(The “↑” and “↓” indicate the order in which Start Timer and Stop Timer are activated.)

e.g. 1) When current time is 8:00 pm:
To make the air-conditioner stop at 11:00 pm and start at 6:00 am the following morning.



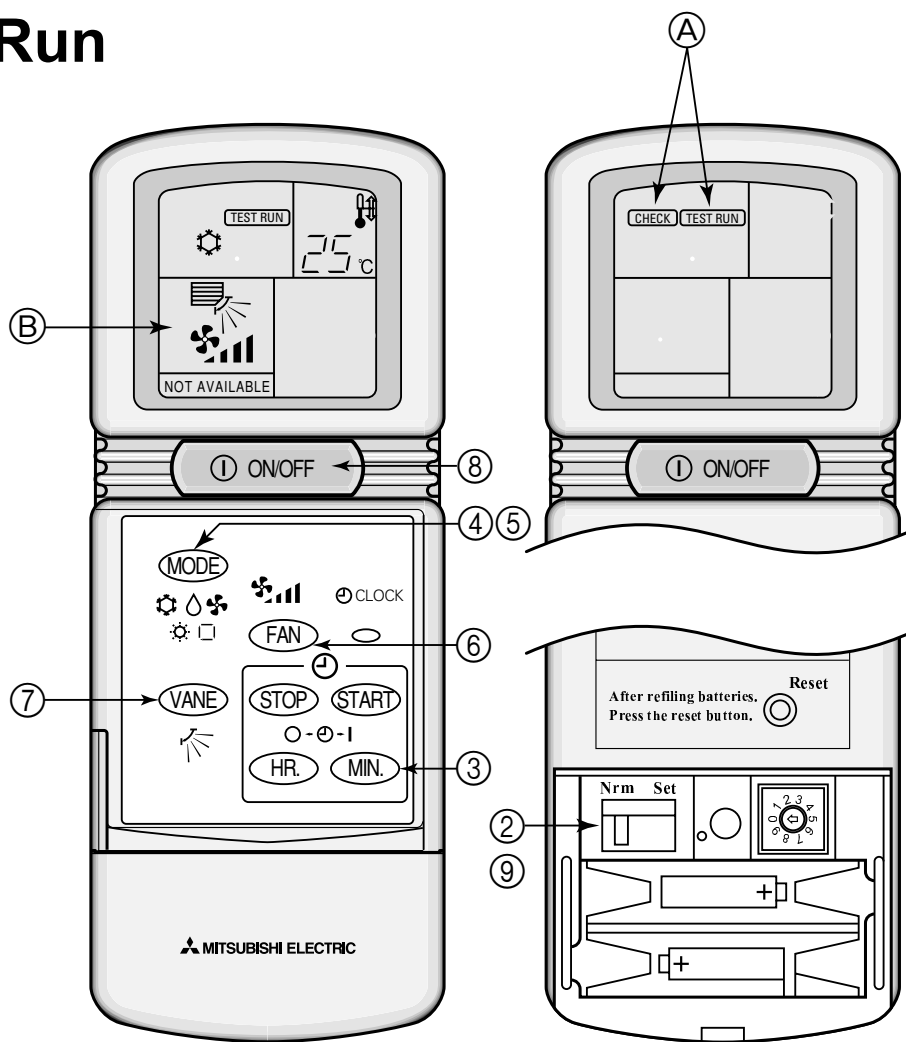
e.g. 2) When current time is 11:00 am:
To make the air-conditioner start at 5:00 pm and stop at 9:00 am the following morning.















Note:

- Timer times can be set in steps of ten minutes.
- If the POWER ON/OFF button is pressed during timer operation, the timers will be canceled.
- If the air conditioner is turned On or Off after the timer operation ends, the operation mode will switch automatically back to continuous operation mode. The air-conditioner will start in the continuous mode when it is turned on next time.

6. Test Run



- ① Turn on the main power to the unit.
- ② Set the Nrm/Set selector switch (on the back of the controller) to «Set».
 - Ⓐ The **CHECK** and **TEST RUN** begin to blink.
- ③ Press the **MIN.** button.
 - Ⓑ **TEST RUN** and current operation mode are displayed.
- ④ Press the **MODE** (   ) button to activate **FAN**  mode, then check whether air is blown out from the unit.
- ⑤ Press the **MODE** (   ) button to activate **COOL**  mode, then check whether cool air is blown out from the unit.
- ⑥ Press the **FAN**  button and check whether strong air is blown out from the unit.
- ⑦ Press the **VANE**  button and check whether the auto vane operates properly.
- ⑧ Press the **ON/OFF** button to stop the test run.
- ⑨ After test run is complete, set the Nrm/Set selector switch to «Nrm».

Note:

Point the remote controller toward the receiver while following steps ③ through ⑧.

7. Centrally Controlled

1. In cases where local operation by wireless remote controller is prohibited.

- When remote operation is prohibited due to centralized control, the prohibited operations cannot be performed using a wireless remote controller.
 - There are 3 types of remote operation that are prohibited, starting and stopping, operating mode and temperature setting.
 - Operations other than the prohibited items are enabled.

2. In cases where wireless remote controller are operated during Centrally Controlled.

- Signal Receiving Unit will respond as follows.
 - Unit will beep twice.
 - ON/OFF lamp will flash three times at 0.25 second intervals if the unit is ON or two times if it is OFF.

Note:

In this case the operation of the air-conditioner and the display of the remote control may differ.

8. Troubleshooting

<When the operation lamp of the Signal Receiving Unit is blinking>

This means that an abnormality has occurred with the air conditioner. In this case, turn the power off and consult your dealer. Do not try to repair by yourself.

9. Specifications

| Item | Specification |
|-----------------------|--|
| Power supply voltage | 3 VDC (two size-AAA alkaline batteries) |
| Operating environment | Temp. 0 to 40 °C, Humidity 30 to 90 % RH (No condensation allowed) |
| Weight | 0.09 kg (without batteries) |
| Dimensions | 153 (H) × 57 (W) × 21 (D) |
| Installation | Wall installation using remote controller holder |
| Time display | 12-hour time display (Current time, Stop timer time, Start timer time) |
| Time setting | Times can be set in steps of 10 minutes. |
| Display method | Digital LCD |
| Clock accuracy | ±50 seconds per month (at 25 °C) |

This product is designed and intended for use in a residential, commercial or light-industrial environment.
The product at hand is based on the following EU regulations:

- Electromagnetic Compatibility Directive 89/336/EEC