

HITACHI

Inspire the Next

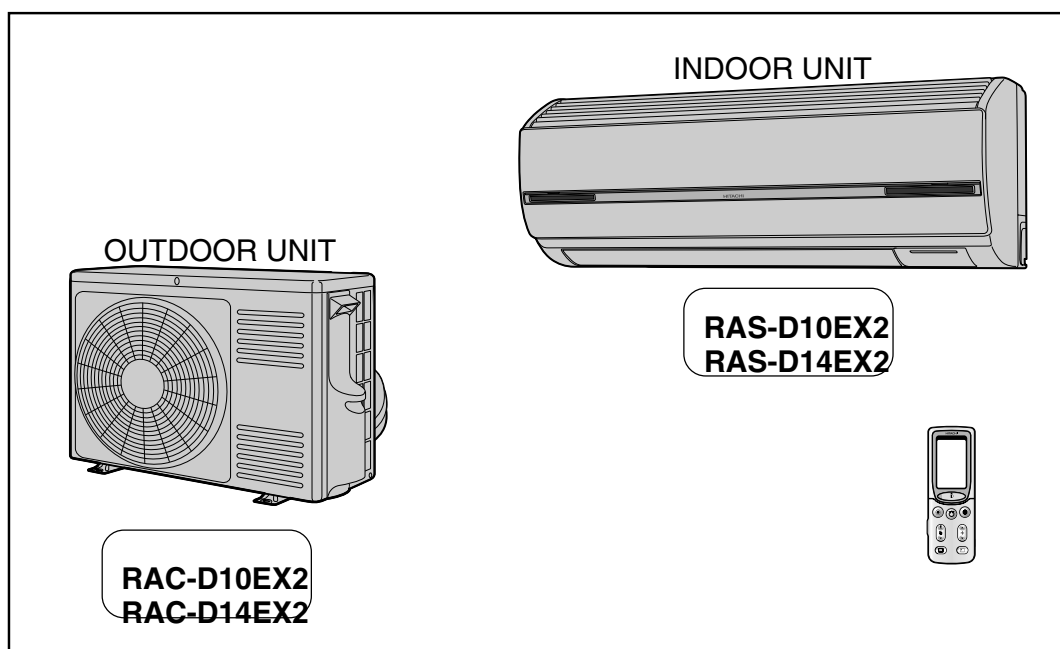
SPLIT TYPE AIR CONDITIONER

INDOOR UNIT/OUTDOOR UNIT



MODEL

RAS-D10EX2 / RAC-D10EX2
RAS-D14EX2 / RAC-D14EX2



Instruction manual

Page 1~36

To obtain the best performance and ensure years of trouble free use, please read this instruction manual completely.

Bedienungsanleitung

Seite 37~72

Bitte lesen Sie diese Bedienungsanleitung aufmerksam durch, um durch richtige Bedienung jahrelangen und störungsfreien Betrieb zu gewährleisten.

Mode d'emploi

Page 73~108

Des performances optimales et un fonctionnement à long terme seront assurés en appliquant les présentes instructions après avoir entièrement lu ce mode d'emploi.

Manuale di istruzioni

Pag. 109~144

Per garantire la migliore prestazione e la più lunga durataleggere attentamente e al completo le seguenti istruzioni.

Manual de instrucciones

Página 145~180

Para obtener el mejor funcionamiento y asegurar años de uso libre de problemas, lea cuidadosamente este manual de instrucciones.

Manual de instruções

Página 181~216

A fim de obter um bom funcionamento e de garantir uma utilização sem falhas durante muitos anos, é favor ler este manual de instruções completamente.

Οδηγίες χρήσεως

σελίδα 217~252

Γιά να είναι εγγυημένη η καλύτερη δυνατή λειτουργία και η χωρίς βλάβες μακροπρόθεσμη χρήση της συσκευής, διαβάστε όλες τις κάτωθι οδηγίες.


Инструкция по эксплуатации

стр. 253~288





Для обеспечения наилучших эксплуатационных характеристик и многолетней безотказной работы оборудования необходимо полностью ознакомиться с данной Инструкцией по эксплуатации.

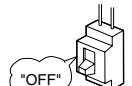




SAFETY PRECAUTION

- Please read the “Safety Precaution” carefully before operating the unit to ensure correct usage of the unit.
- Pay special attention to signs of “**⚠ WARNING**” and “**⚠ CAUTION**”. The “Warning” section contains matters which, if not observed strictly, may cause death or serious injury. The “Caution” section contains matters which may result in serious consequences if not observed properly. Please observe all instructions strictly to ensure safety.
- The signs indicate the following meanings. (The following are examples of signs.)



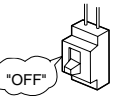















| | |
|--|---|
|  This sign in the figure indicates prohibition. |  Indicates the instructions that must be followed. |
|--|---|

- Please keep this manual after reading.

| PRECAUTIONS DURING INSTALLATION | |
|---------------------------------|--|
| ⚠ WARNING | <ul style="list-style-type: none"> • Do not reconstruct the unit. Water leakage, fault, short circuit or fire may occur if you reconstruct the unit by yourself.  PROHIBITION |
| | <ul style="list-style-type: none"> • Please ask your sales agent or qualified technician for the installation of your unit. Water leakage, short circuit or fire may occur if you install the unit by yourself. |
| | <ul style="list-style-type: none"> • Please use earth line. Do not place the earth line near water or gas pipes, lightning-conductor, or the earth line of telephone. Improper installation of earth line may cause electric shock.  CONNECT EARTH LINE |
| | <ul style="list-style-type: none"> • Be sure to use the specified piping set for R410A. Otherwise, this may result in broken copper pipes or faults. |
| ⚠ CAUTION | <ul style="list-style-type: none"> • A circuit breaker should be installed depending on the mounting site of the unit. Without a circuit breaker, the danger of electric shock exists. |
| | <ul style="list-style-type: none"> • Do not install the unit near location where there is flammable gas. The outdoor unit may catch fire if flammable gas leaks around it. Piping shall be suitable supported with a maximum spacing of 1m between the supports.  PROHIBITION |
| | <ul style="list-style-type: none"> • Please ensure smooth flow of water when installing the drain hose. If any failure is found in the drain path, water drops from the indoor and outdoor units, causing wet household effects. |
| | <ul style="list-style-type: none"> • Make sure that a single phase 230V power source is used. The use of other power sources may cause electrical components to overheat and lead to fire.  PROHIBITION |

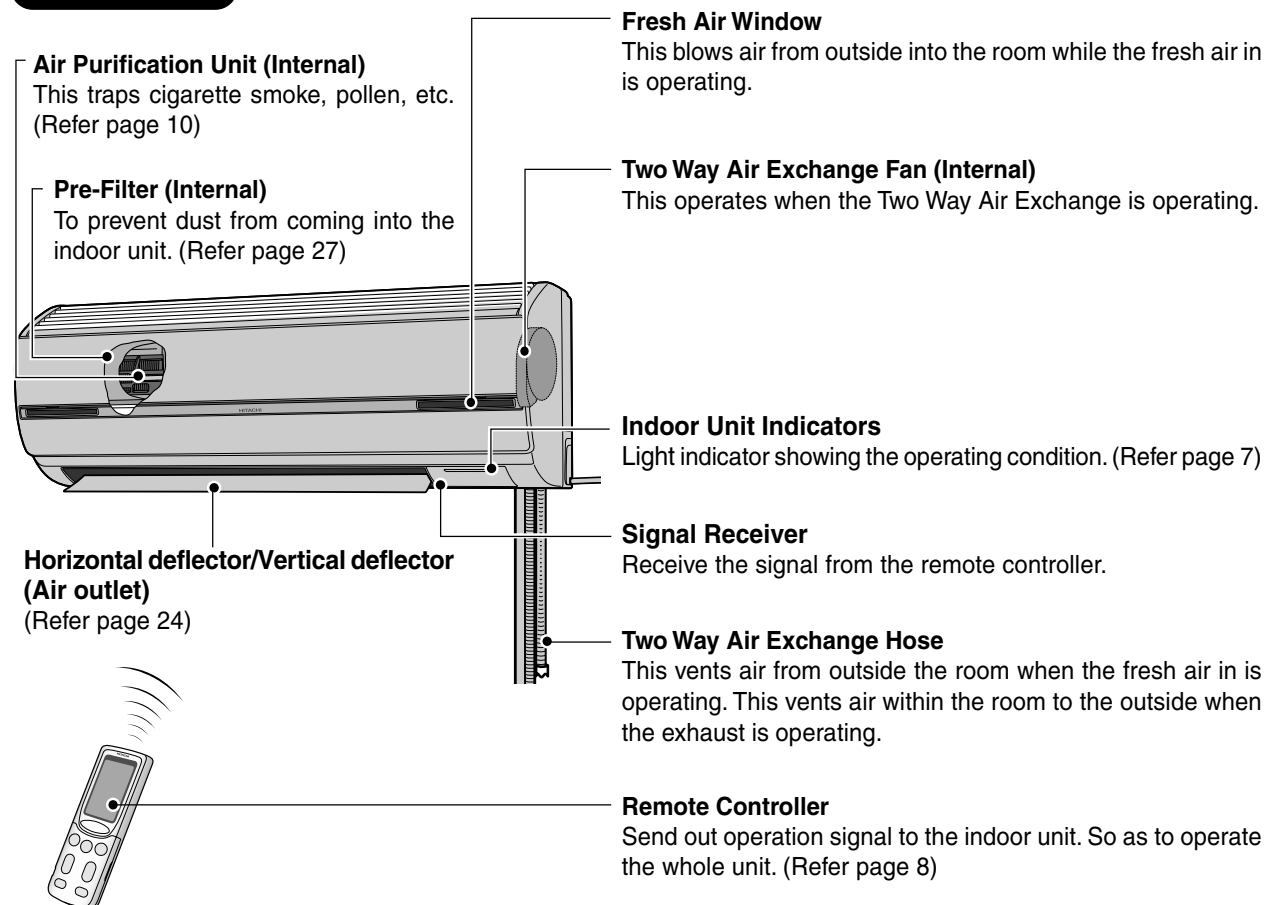
| PRECAUTIONS DURING SHIFTING OR MAINTENANCE | |
|--|---|
| ⚠ WARNING | <ul style="list-style-type: none"> • Should abnormal situation arise (like burning smell), please stop operating the unit and remove plug from the socket or turn off the circuit breaker. Contact your agent. Fault, short circuit or fire may occur if you continue to operate the unit under abnormal situation.  |
| | <ul style="list-style-type: none"> • Please contact your agent for maintenance. Improper self maintenance may cause electric shock and fire. |
| | <ul style="list-style-type: none"> • Please contact your agent if you need to remove and reinstall the unit. Electric shock or fire may occur if you remove and reinstall the unit yourself improperly. |
| | <ul style="list-style-type: none"> • Avoid an extended period of direct air flow for your health.  PROHIBITION |
| | <ul style="list-style-type: none"> • Do not connect the power cable with an extension cable or do not plug too many leads of the other electric appliance into the socket where this cable is plugged. In addition, wire the cable with some allowances to prevent the cable from stretching. Not doing so will cause an electrical shock, heat generation or fire.  PROHIBITION |
| | <ul style="list-style-type: none"> • Do not bundle the power cable, pull it, put something on it, heat it, process it, or put it between things. Breakage of the power cable may result. Use of a damaged cable may cause an electrical shock or a fire.  PROHIBITION |
| |  PROHIBITION <ul style="list-style-type: none"> • Do not put objects like thin rods into the panel of blower and suction side because the high-speed fan inside may cause danger. |
| | |

PRECAUTIONS DURING OPERATION

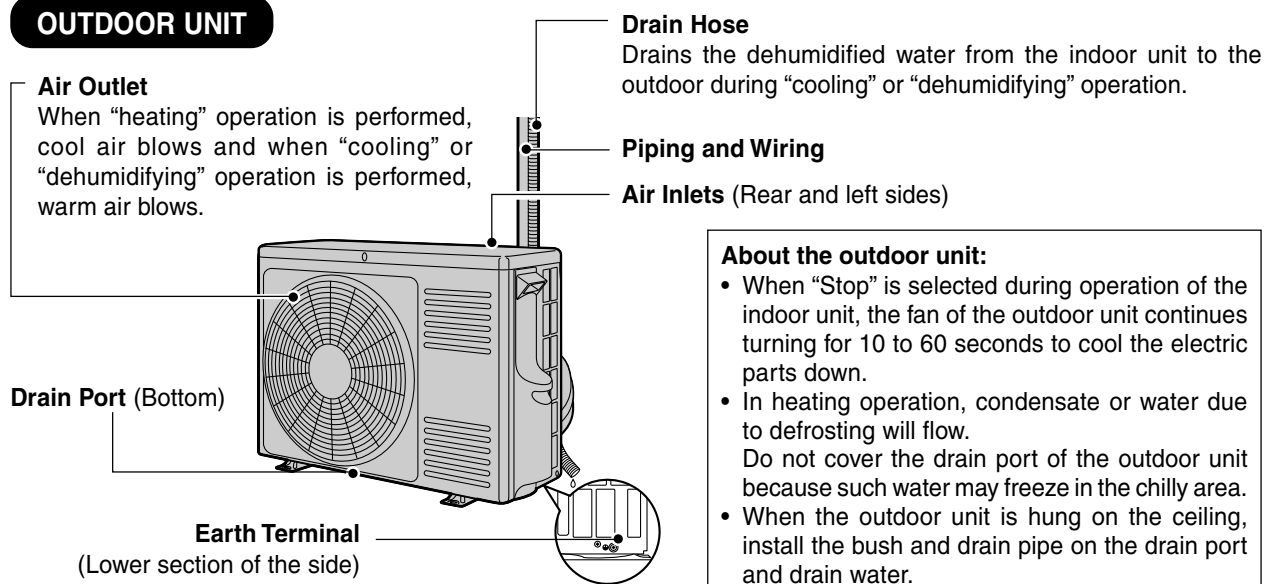
| | |
|---|--|
| <div style="text-align: center;">  WARNING </div> | <ul style="list-style-type: none"> Do not use any conductor as fuse wire, this could cause fatal accident. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  </div> <ul style="list-style-type: none"> During thunder storm, please stop operating the unit and turn off the circuit breaker. </div> |
| | <ul style="list-style-type: none"> Spray cans and other combustibles should not be located within a meter of the air outlets of both indoor and outdoor units. As a spray can's internal pressure can be increased by hot air, a rupture may result. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| <div style="text-align: center;">  CAUTION </div> | <ul style="list-style-type: none"> The product shall be operated under the manufacturer specification and not for any other intended use. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>DON'T WET</small> </div> <ul style="list-style-type: none"> Do not attempt to operate the unit with wet hands. this could cause fatal accident. </div> |
| | <ul style="list-style-type: none"> When operating the unit with burning equipments, regularly ventilate the room to avoid oxygen insufficiency. <div style="text-align: right;">  <small>STRICTLY OBSERVE PRECAUTIONS</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>PROHIBITION</small> </div> <ul style="list-style-type: none"> Do not direct the cool air coming out from the air-conditioner panel to face household heating apparatus as this may affect the working of apparatus such as the electric kettle, oven etc. </div> |
| | <ul style="list-style-type: none"> Please ensure that outdoor mounting frame is always stable, firm and without defect. If not, the outdoor unit may collapse and cause danger. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>PROHIBITION</small> </div> <ul style="list-style-type: none"> Do not wash the unit with water or place a water container such as a vase on the indoor unit. Electrical leakage could be present and cause electric. </div> |
| | <ul style="list-style-type: none"> Do not place plants or animals directly under the air flow as it is bad for the plants or animals. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>PROHIBITION</small> </div> <ul style="list-style-type: none"> Do not climb on the outdoor unit or put objects on it. </div> |
| | <ul style="list-style-type: none"> When operating the unit with the door and windows opened, (the room humidity is always above 80%) and with the air deflector facing down or moving automatically for a long period of time, water will condense on the air deflector and drips down occasionally. This will wet your furniture. Therefore, do not operate under such condition for a long time. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>PROHIBITION</small> </div> <ul style="list-style-type: none"> If the amount of heat in the room is above the cooling or heating capability of the unit (for example: more people entering the room, using heating equipments and etc.), the preset room temperature cannot be achieved. </div> |
| | <ul style="list-style-type: none"> Indoor unit cleaning must be performed by authorized personnel only. Consult your sales agent. Using a commercially available detergent or similar can damage the plastic parts or clog the drain pipe, causing water to drip with potential electric shock hazard. <div style="text-align: right;">  <small>PROHIBITION</small> </div> |
| | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">  <small>DON'T TOUCH</small> </div> <ul style="list-style-type: none"> Do not touch the air outlet, bottom surface and aluminum fin of the outdoor unit. You may get hurt. </div> |
| | <ul style="list-style-type: none"> Do not touch the refrigerant pipe and connecting valve. Burns may result. <div style="text-align: right;">  <small>DON'T TOUCH</small> </div> |

NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT



OUTDOOR UNIT



MODEL NAME AND DIMENSIONS

| MODEL | WIDTH (mm) | HEIGHT (mm) | DEPTH (mm) |
|------------------------|------------|-------------|------------|
| RAS-D10EX2, RAS-D14EX2 | 790 | 298 | 210 |
| RAC-D10EX2, RAC-D14EX2 | 750 | 548 | 288 |

NAMES AND FUNCTIONS OF EACH PART

TWO WAY AIR EXCHANGE DUCT FILTER

Nano-Titanium Disinfecting Deodorizing/ Dust Collecting Fresh Air In Filter

This deodorizes and eliminates dust from the air ventilated from the outside.
(Refer to pages 11, 25)

Exhaust Pre-Filter

This traps dirt and dust particles in the air while the exhaust is operating.
(Refer to page 25)

Fresh Air In Pre-Filter

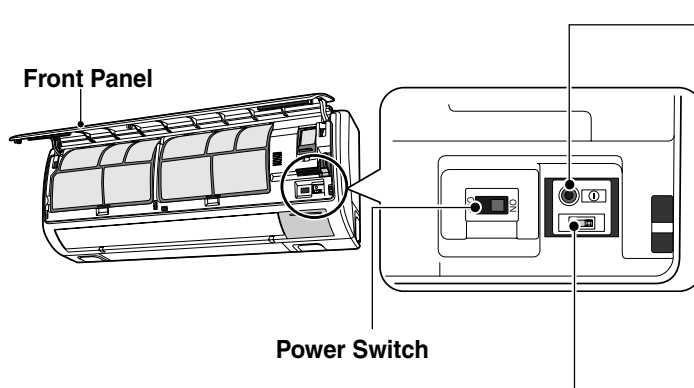
This traps dirt and dust particles in the air ventilated from the outside.
(Refer to pages 11, 25)

Dirt Sensor

The Dirt Sensor detects cigarette smoke, sprays (pesticides), alcohol, etc. (Refer to pages 19, 34)

INDOOR UNIT CONTROL PANEL

■ Operate after opening the front panel. (How to open the front panel, refer to page 10.)



Temporary Switch

If the remote controller does not work due to battery failure, press this switch to start and stop operation.

- This temporary operation will be at the most recent setting mode. (The unit will immediately go into automatic operation once power is switched on.)

Power Switch

Two Way Air Exchange Selection Switch

Select one of the following: "Prohibit Two Way Air Exchange", "Only Exhaust", and "Operate Two Way Air Exchange".

Please refer to page 33 regarding installation when the Two Way Air Exchange cannot be operated.

(When the device is shipped out of the factory, it is set to "Operate Two Way Air Exchange".)

⚠ CAUTION

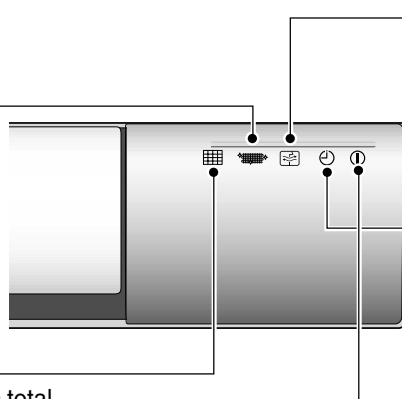
Turn off the circuit breaker or pull out the power plug if the unit is not be operated for a long period.

☆ If the power stays on and the unit is not operated, power is slightly consumed in the control circuit. The power is saved by turning off the power switch (or the circuit breaker when the power is supplied from the outdoor unit).

INDOOR UNIT INDICATORS

Self Clean Lamp (Yellow)

This lamp lights when the device is configured to self clean. (Refer page 19)



Two Way Air Exchange Lamp (Green)

This lamp lights when the fresh air in and exhaust are operating.

Timer Lamp (Orange)

This lamp lights when the timer is working.

Filter Lamp (Green)

When the device is operated for a total of about 200 hours, the FILTER lamp lights indicates that it is time to clean the filter. The lamp goes out when the “ $\frac{1}{2}$ (AUTO SWING)” button is pressed while the operation is stopped. But it does not turn off when self clean is working.

Operation Lamp (Yellow)

This lamp lights during operation.

The OPERATION LAMP blinks in the following cases during heating.

(1) During Preheating

For about 2-3 minutes after starting up.

(2) During Defrosting

Defrosting will be performed about once an hour when frost forms on the heat exchanger of the outdoor unit, for 5-10 minutes each time.

■ The “Two Way Air Exchange” lamp blinks in the following cases (It is not abnormal).

Configuring the Two Way Air Exchange Selection Switch to prohibited setting

- When “Only Exhaust” is selected and “Fresh Air In During Sleep Mode Operation” (page 23) is configured with the remote controller to operate the fresh air in (page 18), the device beeps twice and the “Two Way Air Exchange” lamp blinks (10 seconds).
- When “Prohibit Two Way Air Exchange” is selected and the “Fresh Air In During Sleep Mode Operation” (page 23) or the “Automatic Two Way Air Exchange” (page 19) is configured with the remote controller to operate the fresh air in (page 18), the device beeps twice and the “Two Way Air Exchange” lamp blinks (10 seconds).

While Operating the Two Way Air Exchange

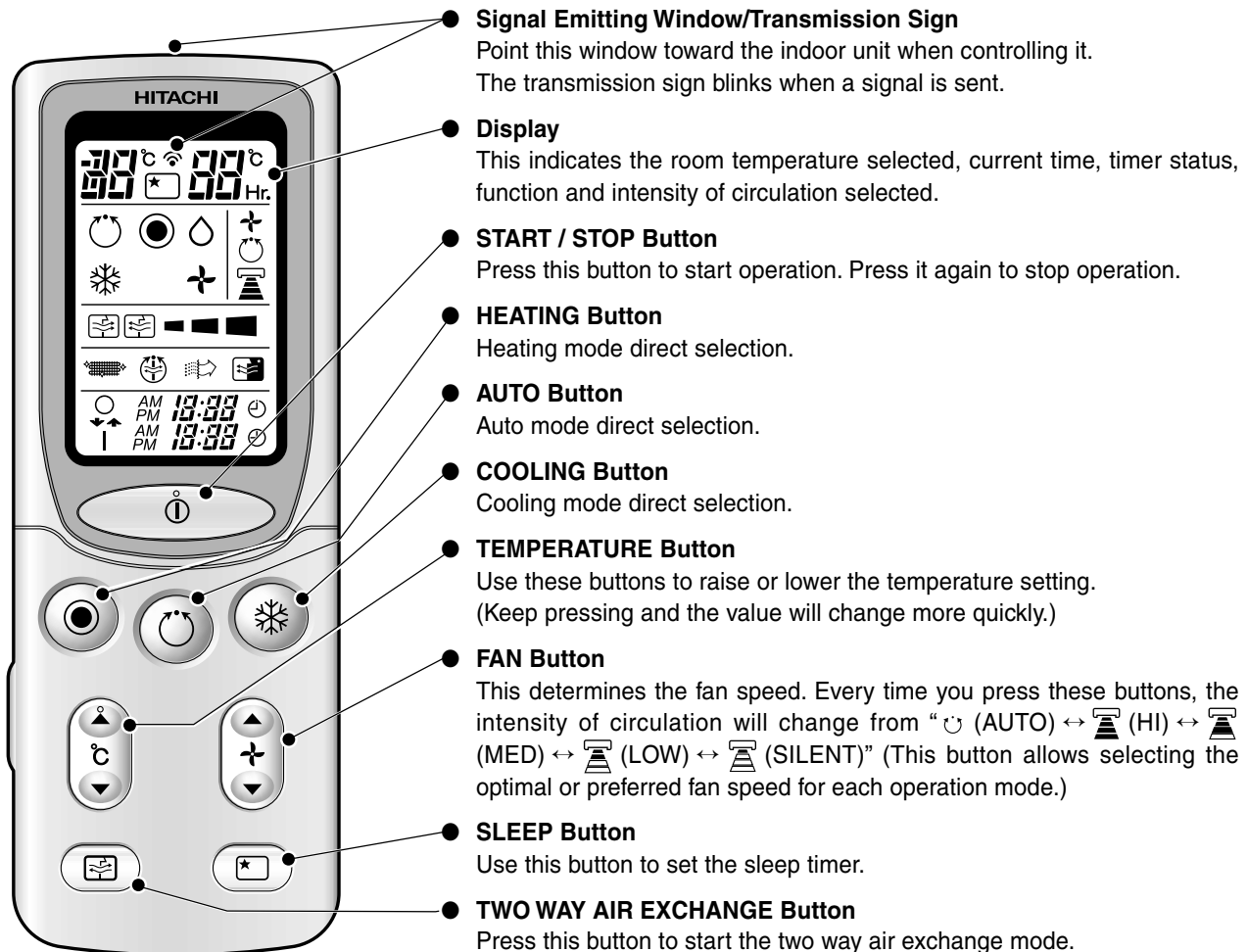
- The two way air exchange is stopped during operation to prevent dew condensation on the two way air exchange fan and hose and to protect the two way air exchange fan due to changes in the room temperature and outside air temperature. At this time, the “Two Way Air Exchange” lamp blinks (lights for 10 seconds/out for 1 second) (page 32).

■ If the “Two Way Air Exchange” lamp blinks except for the above-mentioned case, the “Two Way Air Exchange” Fan is abnormal. (Refer page 32)

NAMES AND FUNCTIONS OF EACH PART

REMOTE CONTROLLER

- This controls the operation of the indoor unit. The range of control is about 7 meters. If indoor lighting is controlled electronically, the range of control may be shorter, in some cases, the control signal may not be received. This unit can be fixed on a wall using the fixture provided. Before fixing it, make sure the indoor unit can be controlled from the remote controller.
- Handle the remote controller with care. Dropping it or getting it wet may compromise its signal transmission capability.
- After new batteries are inserted into the remote controller, the unit will initially require approximately 10 seconds to respond to commands and operate.





| | | | |
|---|---|---|--------------------------------|
| ☺ | AUTO | ☉ | SLEEPING |
| ☉ | HEAT | ○ | STOP (CANCEL) |
| ☉ | DEHUMIDIFY | ⏏ | START (RESERVE) |
| ☉ | COOL | ⏏ | START/STOP |
| ☉ | FAN | ⏏ | TIME |
| ☉ | FAN SPEED | ⏏ | TIMER SET |
| ☉ | SILENT LOW MED HI | ⏏ | TIMER SELECTOR |
| ☉ | TWO WAY AIR EXCHANGE | ⏏ | ON TIMER |
| ☉ | TWO WAY AIR EXCHANGE FAN SPEED | ⏏ | OFF TIMER |
| ☉ | EXHAUST FRESH AIR IN HI MED LOW | ⏏ | AUTO SWING |
| ☉ | FRESH AIR IN DURING SLEEP MODE | ⏏ | SELF CLEAN |
| | | ⏏ | AUTOMATIC TWO WAY AIR EXCHANGE |
| | | ⏏ | AIR PURIFIER |

Precautions for Use

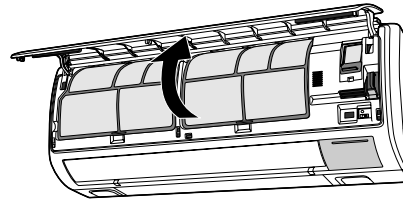
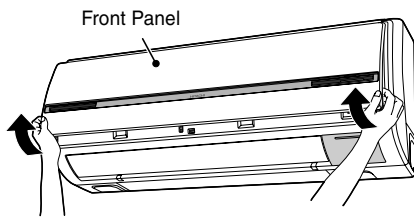
- Do not put the remote controller in the following places.
 - In direct sunlight.
 - In the vicinity of a heater.
- Handle the remote controller carefully. Do not drop it on the floor, and protect it from water.
- Once the outdoor unit stops, it will not restart for about 3 minutes (unless you turn the power switch off and on or unplug the power cord and plug it in again). This is to protect the device and does not indicate a failure.
- If you press the FUNCTION selector button during operation, the device may stop for about 3 minutes for protection.

INSTALLING AND VERIFYING THE AIR PURIFYING FILTER/DUCT FILTER (FRESH DEODORIZING/DUST COLLECTING FRESH AIR IN FILTER)

■ Please install the filters after turning off the device with the remote controller.

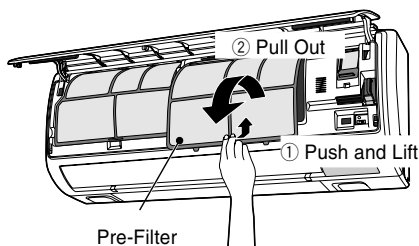
1 Open the Front Panel

- Hold both sides of the front panel and lift up.



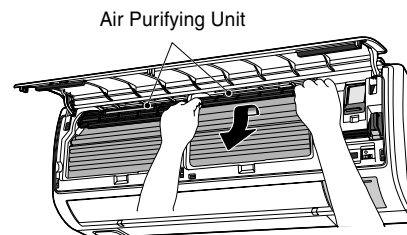
2 Removing the Pre-Filter

- Pull out the pre-filters on the right and left.



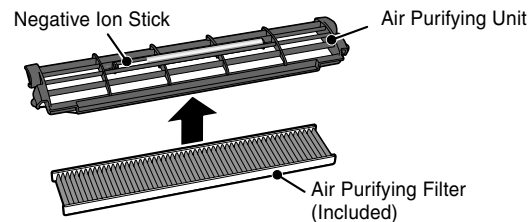
3 Removing the Air Purifying Unit

- Remove the air purifying unit (2 pieces) by pulling out while pushing up with both hands.



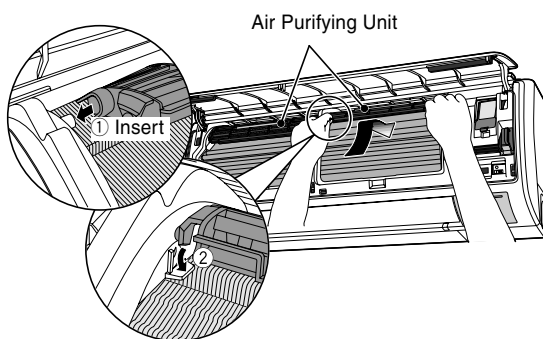
4 Attaching the Air Purifying Filter on the Air Purifying Unit

- Open the air purifying unit and attach the air purifying filter with the jagged side up.



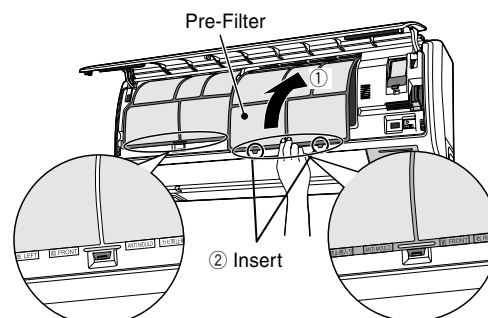
- This filter can be used for about 2 years. Please do not wash this filter. This filter is disposable type.

5 Attaching the Air Purifying Unit



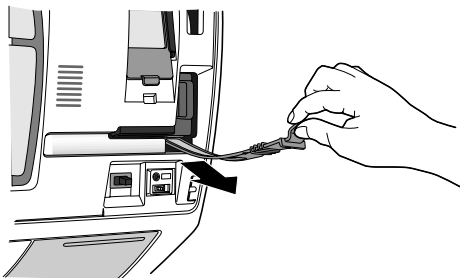
6 Attaching the Pre-Filter

- Please attach the pre-filter with the "FRONT" indication. (The configuration of the left and right pre-filters is different.)



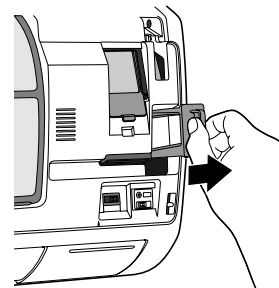
7 Removing the Fresh Air In Pre-Filter

- Please pull out.



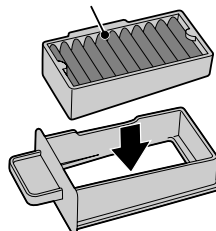
8 Removing the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case

- Please hold the handle of the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case and pull out.



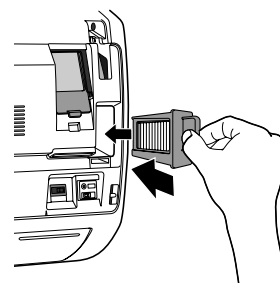
9 Attaching the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter

Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter (included)



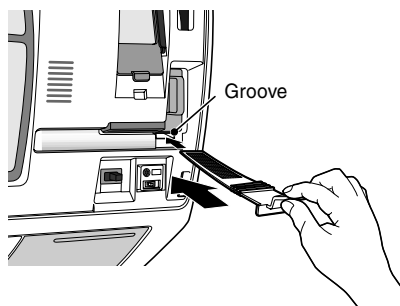
10 Attaching the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case

- Please hold the handle of the case and attach along the slot, and then keep pressing until the case clicks.
- Improper filter installation may result in abnormal noises.



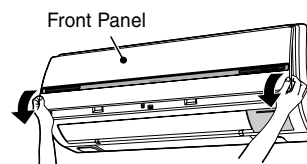
11 Attaching the Fresh Air In Pre-Filter

- Please hold the handle and install the filter by pushing it along the inner grooves.

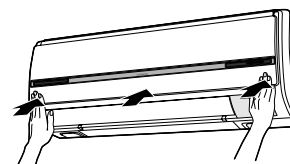


12 Closing the Front Panel

- Hold the front panel with both hands and pull forward, then down.

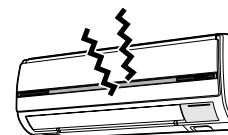


- Keep pressing the front panel in the direction of the arrow (3 places) until the panel clicks.



CAUTION

- If the front panel is loose, the panel may come off and fall.
- When opening the front panel, please do not use excessive force. If the front panel comes off the device, this may cause it to malfunction.
- Please do not operate the device without the pre-filter. If dust enters the machine, this may cause it to malfunction.
- When removing and installing the pre-filter, please take sufficient care not to cut your hand with the fin of the heat exchanger.



VARIOUS FUNCTIONS

AUTO RESTART CONTROL

- If there is a power failure, operation will be automatically restarted when the power is resumed with previous operation mode and airflow direction. (As the operation is not stopped by remote controller.)
- If you intend not to continue the operation when the power is resumed, switch off the power supply.

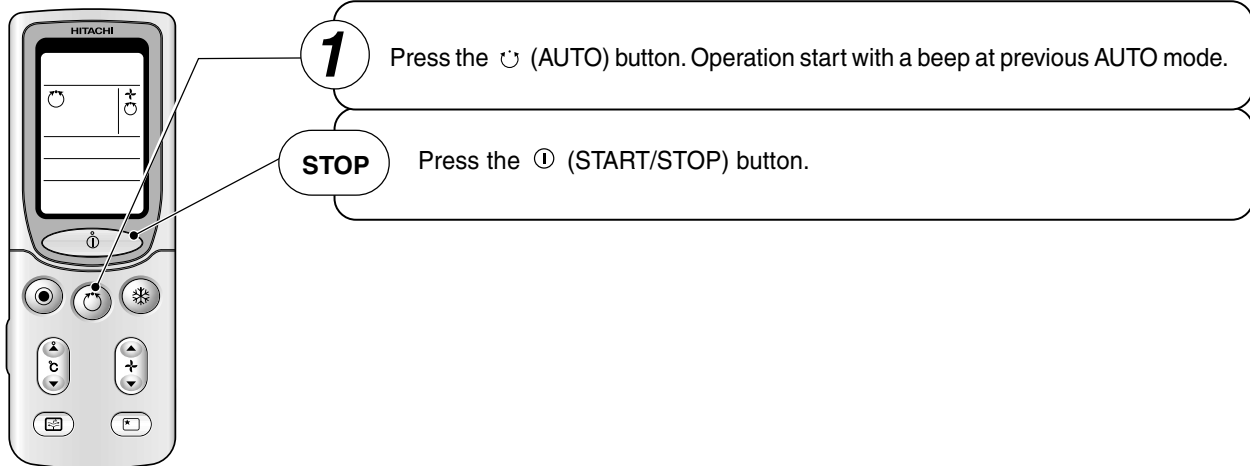
When you switch on the circuit breaker, the operation will be automatically restarted with previous operation mode and airflow direction.

Note: 1. If you do not require Auto Restart Control, please consult your sales agent.
2. Auto Restart Control is not available when Timer or Sleep Timer mode is set.

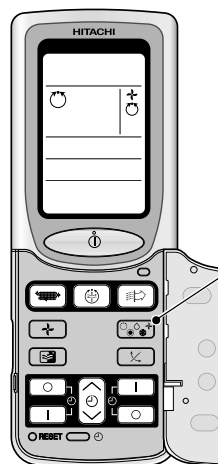
AUTOMATIC OPERATION

The device will automatically determine the mode of operation, HEAT or COOL depending on the initial room temperature. The selected mode of operation will change when the room temperature varies.

■ Direct selection



■ Manual selection



1

Press the FUNCTION selector so that the display indicates the (AUTO) mode of operation.

- When AUTO has been selected, the device will automatically determine the mode of operation, HEAT or COOL depending on the current room temperature.
- When AUTO is first selected, the device will determine the current room temperature and select the proper operation mode accordingly.
- When the air conditioner has adjusted the room's temperature to the near preset temperature, it will begin to monitor operation. If the room temperature subsequently changes, the air conditioner will once again select the appropriate operation (heating or cooling) to adjust the temperature to the preset temperature. The monitoring operation range is $\pm 3^{\circ}\text{C}$ relative to the preset temperature.
- If the mode automatically selected by the unit is not satisfactory, manually change the mode setting (heat, dehumidify, cool or fan).



START
STOP

Press the (START/STOP) button.
Operation starts with a beep.
Press the button again to stop operation.

- As the settings are stored in memory in the remote controller, you only have to press the (START/STOP) button next time.

You can raise or lower the temperature setting as necessary by maximum of 3°C .



Press the temperature button and the temperature setting will change by 1°C each time.

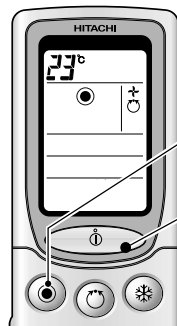
- The preset temperature and the actual room temperature may vary somewhat depending on conditions.

Press the (FAN SPEED) button to select AUTO, LOW and SILENT.

HEATING OPERATION

- Use the device for heating when the outdoor temperature is under 21°C. When it is too warm (over 21°C), the heating function may not work in order to protect the device.
- In order to keep reliability of the device, please use this device above -15°C of the outdoor temperature.

■ Direct selection



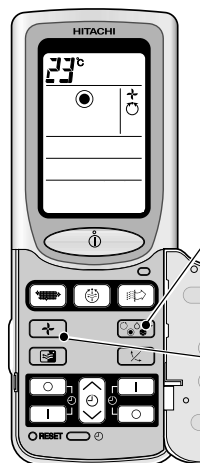
1

Press the ● (HEAT) button. Operation start with a beep at previous HEAT mode.

STOP

Press the ① (START/STOP) button.

■ Manual selection



1

Press the FUNCTION selector so that the display indicates ● (HEAT).

Set the desired FAN SPEED with the ⇄ (FAN SPEED) button (the display indicates the setting).

☼ (AUTO) : The FAN SPEED changes automatically according to the temperature of the air which blows out.

🔊 (HI) : Economical as the room will become warm quickly. But you may feel a chill at the beginning.

🔊 (MED) : Quiet.

🔊 (LOW) : More quiet.

🔊 (SILENT) : Silent.

2

Set the desired room temperature with the TEMPERATURE buttons (the display indicates the setting).

The temperature setting and the actual room temperature may vary somewhat depending on conditions.

3

START
STOP

Press the ① (START/STOP) button.

Heating operation starts with a beep.

Press the button again to stop operation.

- As the settings are stored in memory in the remote controller, you only have to press the ① (START/STOP) button next time.

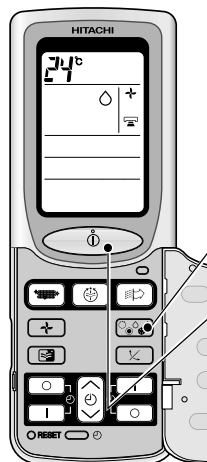
DEFROSTING



Defrosting will be performed about once an hour when frost forms on the heat exchange of the outdoor unit, for 5~10 minutes each time.

During defrosting operation, the operation lamp blinks in cycle of 3 seconds on and 0.5 second off. The maximum time for defrosting is 20 minutes. (If the piping length used is longer than usual, frost will likely to form.)

DEHUMIDIFYING OPERATION

Use the device for dehumidifying when the room temperature is over 16°C. When it is under 15°C, the dehumidifying function will not work.


1

Press the FUNCTION selector so that the display indicates  (DEHUMIDIFY).
Press the  (FAN SPEED) button to select LOW and SILENT.

**START
STOP**

Press the  (START/STOP) button.

- When you want to change the operation mode, please use the FUNCTION selector.
- Set the desired temperature is available.
- You also can use the FUNCTION selector to select this operation.

DEHUMIDIFYING FUNCTION

- Dehumidifying takes place with a target temperature which is slightly lower than the room temperature setting. (However, target temperature is 16°C for a temperature setting of 16°C.) If the room temperature becomes lower than the target value, operation stops. If the room temperature becomes higher than the target value, operation restarts.
- The preset room temperature may not be reached depending on the number of people present in the room conditions.

COOLING OPERATION

Use the device for cooling when the outdoor temperature is 22-42°C.
If humidity is very high (over 80%) indoors, some dew may form on the air outlet grill of the indoor unit.

■ Direct selection



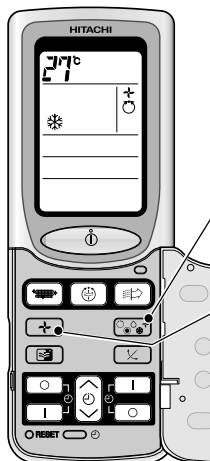
1

Press the ❄ (COOL) button. Operation start with a beep at previous COOL mode.

STOP

Press the ⏻ (START/STOP) button.

■ Manual selection



1

Press the FUNCTION selector so that the display indicates ❄ (COOL).

Set the desired FAN SPEED with the ⇄ (FAN SPEED) button (the display indicates the setting).

⏻ (AUTO) : The FAN SPEED is HI at first and varies to MED automatically when the preset temperature has been reached.

⏻ (HI) : Economical as the room will become cool quickly.

⏻ (MED) : Quiet.

⏻ (LOW) : More quiet.

⏻ (SILENT) : Silent.

2

Set the desired room temperature with the TEMPERATURE buttons (the display indicates the setting).

3

The temperature setting and the actual room temperature may vary somewhat depending on conditions.

Press the ⏻ (START/STOP) button. Cooling operation starts with a beep. Press the button again to stop operation. The cooling function does not start if the temperature setting is higher than the current room temperature (even though the ⏻ (OPERATION) lamp lights).

**START
STOP**

The cooling function will start as soon as you set the temperature below the current room temperature.

■ As the settings are stored in memory in the remote controller, you only have to press the ⏻ (START/STOP) button next time.



AIR PURIFIER OPERATION (FAN)



The air purifier is operated by pressing the (AIR PURIFIER) button.

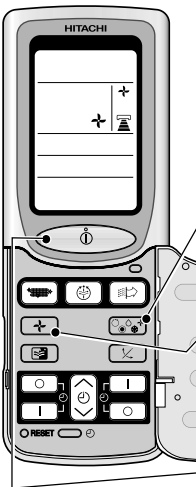
- The device beeps when it has received the signal and then the air purifier starts.
- The OPERATION lamp on the indoor unit indicators turn on.
- The fan speed can be changed as desired.
Either HI, MED, LOW or SILENT can be selected.

The power of the air purifier is increased by increasing the speed of the air conditioner's fan, by pressing the (AIR PURIFIER) button while the HEAT, COOL or DEHUMIDIFY operates.
(Depending on the operation conditions, there is a case that the fan speed does not increase.)

Press the (START/STOP) button to stop operation.
Press the (AIR PURIFIER) button again to cancel the air purifier operation.
(During HEAT, COOL or DEHUMIDIFY operation)

FAN OPERATION

You can use the device simply as an air circulator. Use this function to dry the interior of the indoor unit at the end of summer.



1 Press the FUNCTION selector so that the display indicates (FAN).

Press the (FAN SPEED) button.

- (HI) : The strongest air blow.
- (MED) : Quiet.
- (LOW) : More quiet.
- (SILENT) : Silent

Press the (START/STOP) button.
Fan operation starts with a beep.
Press the button again to stop operation.

FAN SPEED (AUTO)

...When the AUTO fan speed mode is set in the cooling/heating operation:

| | |
|---------------------------|--|
| For the heating operation | <ul style="list-style-type: none">• The fan speed will automatically change according to the temperature of discharged air.• As room temperature reaches the preset temperature, a very light breeze will blow. |
| For the cooling operation | <ul style="list-style-type: none">• Operation starts in the "HI" mode to reach the preset temperature.• As room temperature approaches the preset temperature, fan speed automatically switches to "LOW". |

TWO WAY AIR EXCHANGE OPERATION

(Please refer to page 32, Understanding The Operating Mechanism)

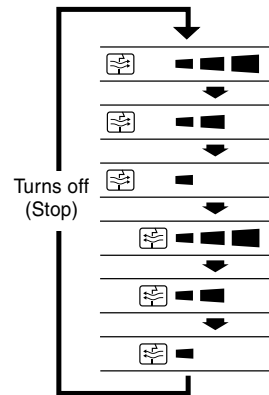
- Operate the fresh air in and exhaust by operating the two way air exchange fan.
- The fresh air in and exhaust can be operated in combination by configuring the Two Way Air Exchange Operation while the air conditioning operates.
- The fresh air in and exhaust cannot be operated simultaneously.



1


Press the  button.

- The device beeps when it has received the signal and the two way air exchange starts. By pressing the button, the display changes as on the right.
- The OPERATION and the "Two Way Air Exchange" lamps on the indoor unit indicators turns on.
- Although the ventilated air is deodorized by the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter, the odor of the ventilated air may enter the room according to the environment where the filter is utilized. If there is concern regarding any odors, please stop the device.
- Operate the exhaust for about 10 minutes every 2 hours during fresh air in to prevent dew condensation on the two way air exchange fan and hose and to prevent dust from plugging the hose.
- It is recommended that the self clean operation is configured to dry the inside of the two way air exchange hose (Refer page 30).



STOP

Press the  (START/STOP) button.

Press the  button. Until Fresh Air In or Exhaust on the remote controller turns off. (During HEAT, COOL and DEHUMIDIFY operation)

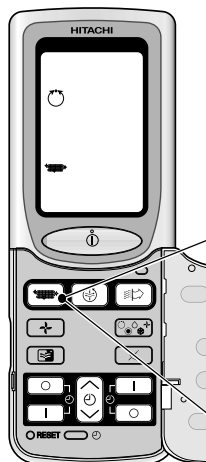
WARNING

- If the fresh air in/exhaust function is insufficient when the air conditioning is utilized in a sealed room or simultaneously with a heating appliance, open a window often or ventilate with a ventilating fan.
- If ventilation is insufficient, oxygen deficiency may cause asphyxiation.
- **When the humidity inside the room is HIGH (more than 70%), do not use the fresh air in operation.** Dew condensation may be the cause of failure.

SELF CLEAN OPERATION


(Please refer to page 34, Understanding The Operating Mechanism)

- By configuring Self Clean operation, once cooling and dehumidifying operation are performed, the device automatically performs Self Clean operation suppressing the outbreak of mold. (This does not eliminate the presence of mold or have a bactericidal effect.)
- As this operation cause the two way air exchange fan and hose dry, it is recommended that to set Self Clean operation when utilizing the fresh air in operation (Refer page 18).





1

Press the  (SELF CLEAN) button.

- The device beeps when it has received the signal and the  (SELF CLEAN) button on the remote controller turns on.
- The “SELF CLEAN” lamp on the indoor unit indicators turns on.
- This operates for about one hour and automatically stops.
- The “OPERATION” lamp on the indoor unit indicators turns on during the self clean operation and then the “SELF CLEAN” lamp blinks. (When drying the two way air exchange fan and hose operation is performed, the “TWO WAY AIR EXCHANGE” lamp also turns on.)
- When cooling and dehumidifying operation are performed for a short time (less than 1 hr.), the Self Clean operation does not perform.


CANCEL

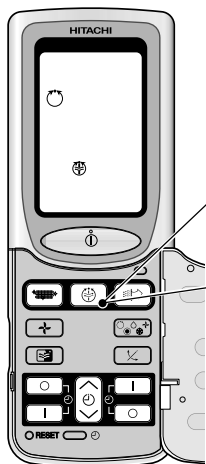
To cancel, press the  (SELF CLEAN) button again.

- The  (SELF CLEAN) button on the remote controller turns off.
- The “SELF CLEAN” lamp on the indoor unit indicators turns off.


AUTOMATIC TWO WAY AIR EXCHANGE OPERATION


(Please refer to page 34, Understanding The Operating Mechanism)

- By configuring the Automatic Two Way Air Exchange, the “Dirt Sensor” detects the dust in the room’s air. If the air is dirty, the air conditioning automatically operates the blower and exhaust and when the air becomes clean, the Fresh Air In is operated.
- When the prohibit Two Way Air Exchange is selected with the Two Way Air Exchange Selection Switch (Refer page 6), please do not configure the Automatic Two Way Air Exchange. Aside from ①, the remote controller is not able to configure any other settings.
- If Fresh Air In or Exhaust is operated using the  button during Automatic Two Way Air Exchange Set, Fresh Air In or Exhaust Operation perform in the priority.





1

Press the  button.


- The device beeps when it has received the signal and the  on the remote controller turns on.
- The “TWO WAY AIR EXCHANGE” lamp on the indoor unit indicators turns on.

CANCEL

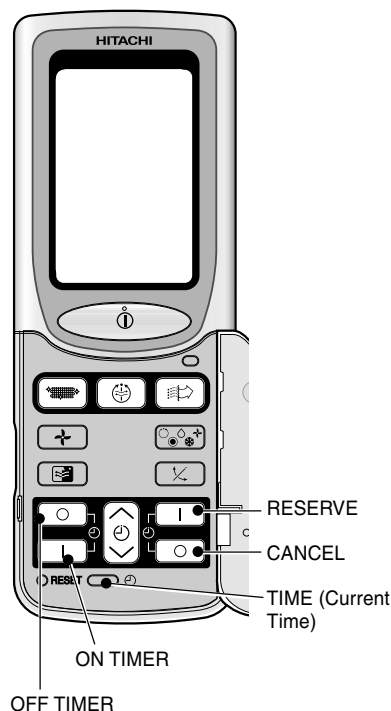
To cancel, press the  button again.

- The  on the remote controller turns off.
- The “TWO WAY AIR EXCHANGE” lamp on the indoor unit indicators turns off.

⚠ CAUTION

- Exhaust operation may not perform in Automatic Two Way Air Exchange Operation when the air inside the room is dirt.
In this case, please operate Exhaust operation manually by pressing the  (Two Way Air Exchange) button or open the windows for ventilation.

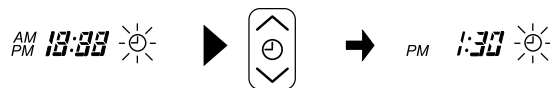
HOW TO SET THE TIMER



Time

After you change the batteries:

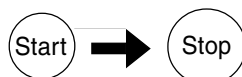
1 Set the current time with the TIMER control button.



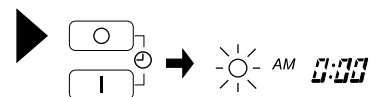
Example: The current time is P.M.1:30.

OFF-Timer

1 Press the ○ (OFF-TIMER) button. The ○ (OFF) mark blinks on the display.

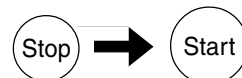


You can set the device to turn off at the present time.

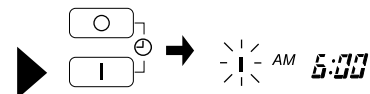


ON-Timer

1 Press the | (ON-TIMER) button. The | (ON) mark blinks on the display.



The device will turn on at the designated times.



ON/OFF-Timer



- The device will turn on (off) and off (on) at the designated times.
- The switching occurs first at the preset time that comes earlier.
- The arrow mark appearing on the display indicates the sequence of switching operations.

1 Press the ○ (OFF-TIMER) button so that the ○ (OFF) mark blinks.

2 Set the turn-off time with the TIMER control button. Press the | (RESERVE) button.

3 Press the | (ON-TIMER) button so that the ○ (OFF) mark lights and the | (ON) mark blinks.



How to Cancel Reservation

Point the signal window of the remote controller toward the indoor unit, and press the ○ (CANCEL) button. The ⌚ (RESERVED) sign goes out with a beep and the ⌚ (TIMER) lamp on the indoor unit indicators turns off.

NOTE

You can set only one of the OFF-timer, ON-timer and ON/OFF-timer.

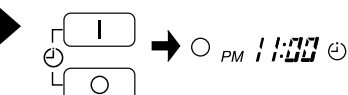
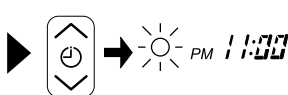
2 Press the ⌚ (TIME) button. The time indication starts lighting instead of blinking.

- The time indication will disappear automatically in 10 seconds.
- To check the current time setting, press the ⌚ (TIME) button twice. The setting of the current time is now complete.



2 Set the turn-off time with the TIMER control button.

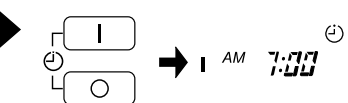
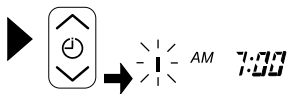
3 Point the signal window of the remote controller toward the indoor unit, and press the I (RESERVE) button. The O (OFF) mark starts lighting instead of blinking and the ⌚ (RESERVED) sign lights. A beep occurs and the ⌚ (TIMER) lamp lights on the indoor unit.



Example:
The device will turn off at P.M.11:00.
The setting of turn-off time is now complete.

2 Set the turn-on time with the TIMER control button.

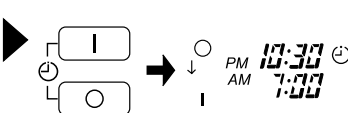
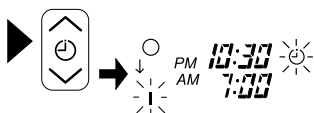
3 Point the signal window of the remote controller toward the indoor unit, and press the I (RESERVE) button. The I (ON) mark starts lighting instead of blinking and the ⌚ (RESERVED) sign lights. A beep occurs and the ⌚ (TIMER) lamp lights on the indoor unit.



Example:
The device will turn on early so that the preset temperature be almost reached at A.M.7:00.
The setting of the turn-on time is now complete.

4 Set the turn-on time with the TIMER control button.

5 Point the signal window of the remote controller toward the indoor unit, and press the I (RESERVE) button. The I (ON) mark starts lighting instead of blinking and the ⌚ (RESERVED) sign lights. A beep occurs and the ⌚ (TIMER) lamp lights on the indoor unit.



Example:
For heating, the device will turn off at P.M.10:30, and then turn on early so that the preset temperature be almost reached at A.M.7:00; for cooling and dehumidifying, it will simply turned on at A.M.7:00. The settings of the turn on/off times are now complete.

- The timer may be used in three ways: off-timer, on-timer and ON/OFF (OFF/ON)-timer. Set the current time at first because it serves as a reference.
- As the time settings are stored in memory in the remote controller, you only have to press the I (RESERVE) button in order to use the same settings next time.

HOW TO SET THE SLEEP TIMER

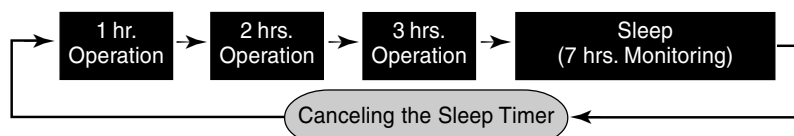
- The "Off Timer", used exclusively when sleeping, stops the fan after a specified time after configuring the "Fan Speed" appropriate before going to bed, when cooling with the air conditioning.
- The "Off Timer" stops the individual operation of the fresh air in, exhaust and air purifier after a specified time.



1

- By pressing the (SLEEP) button, the desired sleep time can be selected (1 hr., 2 hrs., 3 hrs. or 7 hrs. Monitoring).
- The Sleep (7 hrs. Monitoring) operation momentarily stops cooling/dehumidifying after operating for three hours and then the room's temperature is monitored for the next 4 hrs.. While the room is monitored, the device automatically operates/stops repeatedly (One Hour More Timer) according to the conditions of the room.
- The Sleep (7 hrs. Monitoring) operation momentarily stops heating after operating for three hours and then the room's temperature is monitored for the next 4 hrs.. When the room temperature falls by 4-5°C, the device restarts to maintain the temperature.

- By pressing the (SLEEP) button, the display changes as follows.



2

- The device beeps when it has received the signal and the Sleep operation starts. The specified Sleep Timer and the stop operation time are displayed in the display of the remote controller.
- The timer lamp of the indoor device turns on when configuring the Sleep Timer.
- The fan speed during the Sleep operation is set at silent.
- The Sleep Timer settings of the fresh air in, exhaust and the air purifier are 1, 2, 3 and 7 hrs..

Sleep timer

Start

The device will be turned off by the sleep timer and turned on by on-timer.

1 Set the ON-timer.

2 Press the (SLEEP) button and set the sleep timer.

2 Hr. **1:38** **5:00**

Example:

For heating:

In this case, the device will turn off in 2 hrs. (at A.M.1:38) and turn on early so that the preset temperature will be almost reached at A.M.6:00 next morning.

How to Cancel Reservation

Point the signal window of the remote controller toward the indoor unit, and press the (CANCEL) button. The (RESERVED) sign goes out with a beep and the (TIMER) lamp on the indoor unit indicators turns off.

NOTE


If you set the sleep timer when the off-time or on/off-timer has been set earlier, the sleep timer becomes effective instead of the off - or on/off-timer set earlier.

Specifications of the One Hour More Timer

- Even after the 1, 2 or 3 hrs. Sleep Timer has expired when cooling/dehumidifying, this function monitors the room's temperature and automatically operates and stops (1 hr. more timer operation) one more time according to the condition of the room (monitoring time is a maximum of 4 hrs. after the timer expires).

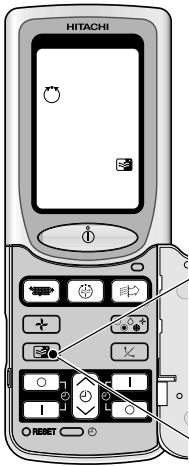
| | |
|------------------------|--|
| Cooling, Dehumidifying | If the room temperature rises by 2°C, the device operates for 1 hr.. |
|------------------------|--|

- The timer lamp of the indoor unit turns on while the room's temperature is monitored after the 1, 2 or 3 hrs. timer expires and the and on the remote controller turn on.



FRESH AIR IN DURING SLEEP MODE OPERATION

By configuring the “Fresh Air In During Sleep Mode”, a fresh air in operation of blowing outside air into the room is added during the “Sleep Timer” operation (page 22) while cooling/dehumidifying. (This cannot be configured when heating operation.)



1

Press the button.


- The device beeps when it has received the signal and the on the remote controller turns on.
- If the Fresh Air In During Sleep Mode is configured and set while the air conditioning is stopped, the Fresh Air In During Sleep Mode does not operate. When Sleep is operated while cooling/dehumidifying, the air conditioning automatically operates the “Fresh Air In During Sleep Mode”.
- The “Two Way Air Exchange” lamp on the indoor unit indicators turns on during Fresh Air In operating.
- Even after the Sleep Timer of the air conditioning expires, the room temperature and the outside temperature are monitored, while the One Hour More Timer operates and monitors (page 23). If the outside temperature is cooler than room temperature, the Fresh Air In operates.


CANCEL

To cancel, press the button again.

- The on the remote controller turns off.

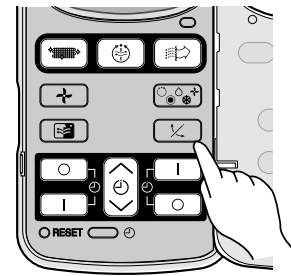
ADJUSTING THE AIR DEFLECTORS

- 1** Adjustment of the conditioned air in the upward and downward directions.
- The horizontal air deflector is automatically set to the proper angle suitable for each operation. The deflector can be swing up and down continuously and also set to the desired angle using the “ (AUTO SWING)” button.

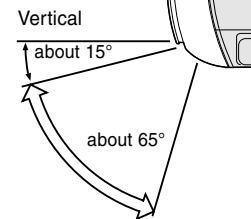
- If the “ (AUTO SWING)” button is pressed once, the horizontal air deflector swings up and down. If the button is pressed again, the deflector stops in its current position. Several seconds (about 6 seconds) may be required before the deflector starts to move.
- Use the horizontal air deflector within the adjusting range shown in the right.
- When the operation is stopped, the horizontal air deflector moves and stops at the position where the air closes.

CAUTION

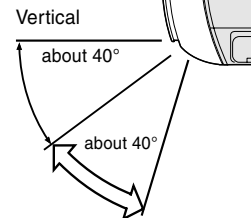
- In “Cooling” operation, do not keep the horizontal air deflector swinging for a long time. Some dew may form on the horizontal air deflector and dew may drop.



When Cooling, Dehumidifying

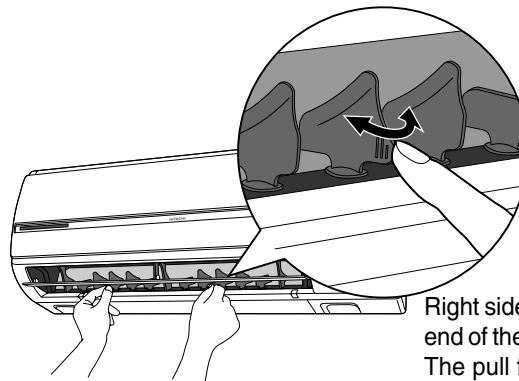


When heating



- 2** Adjustment of the conditioned air to the left and right.

Hold the vertical air deflector as shown in the figure and adjust the conditioned air to the left and right.



Left side: Hold the third blade from the left end of the air deflector to adjust the direction. The pull for the blade is marked.

Right side: Hold the third blade from the right end of the air deflector to adjust the direction. The pull for the blade is marked.

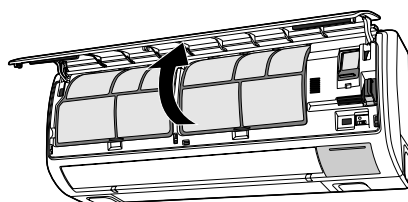
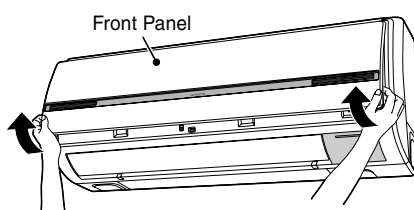
MAINTENANCE

- It is recommended to carry out deep cleaning of the two way air exchange duct filters (Fresh Air In Pre-Filter, Exhaust Pre-Filter, Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter) regularly.
- Cleanliness of filters differs according to environment and usage conditions. Check regularly and if the filters are dirty, cleaning is recommended. Especially if the Fresh Air In operation is utilized often, check the filters once every 2 weeks and if the filter is dirty, cleaning is recommended.

Although small insects may be caught in the Fresh Air In Pre-Filter, they have entered from the outside air (outside the room) and it is not uncommon. Please wash the Fresh Air In Pre-Filter.

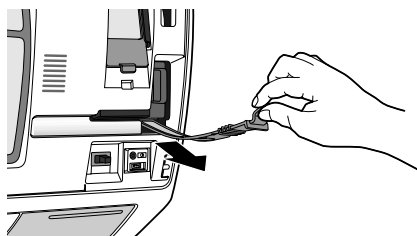
1 Opening the Front Panel

- Hold both sides of the front panel and lift up.



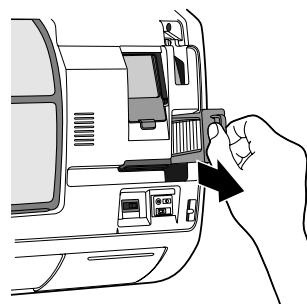
2 Removing the Fresh Air In Pre-Filter

- Please pull out to the front.



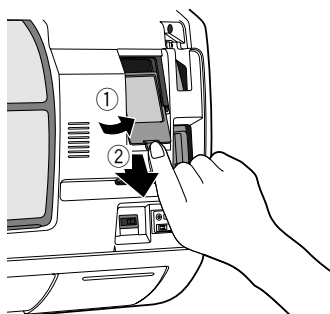
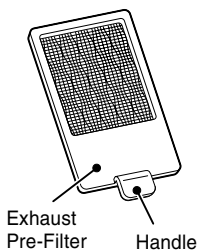
3 Removing the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case

- Please hold the handle of the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case and pull out to the front.



4 Removing the Exhaust Pre-Filter

- Please remove by pushing up the handle ① and then pulling ②.



5 Confirm the Dirt on Each of the Removed Filters

- Please proceed to ⑦ if the filter is not dirty.

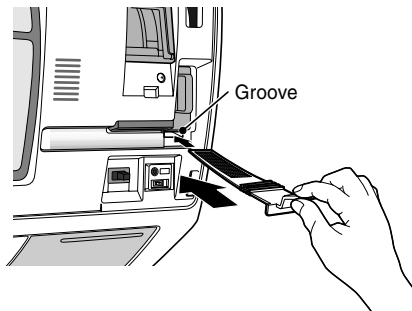
MAINTENANCE

6 Wash Each of the Removed Filters with Water

- After washing with water, please allow to drip dry.
- If the dirt is difficult to wash off, please wash with luke warm water that does not exceed 40°C.
- Do not rub too hard when washing with water.
- Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter should wash and dry in the shade once in every 3 months. Although it can be washed and used repeatedly, it is recommended that the filter is replaced every 3 years.

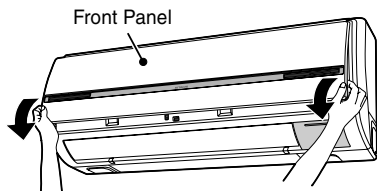
8 Attaching the Fresh Air In Pre-Filter

- Please keep the engraved mark up and attach by pushing the filter into the device until the filter clicks.
- Improper filter installation may result in abnormal noises.



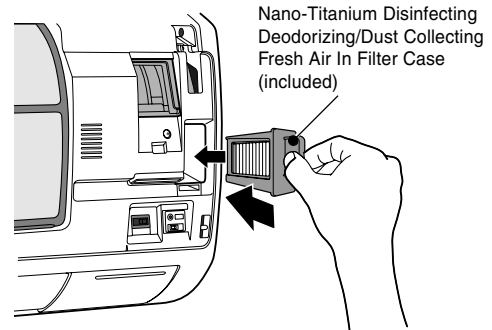
10 Close the Front Panel

- Hold the front panel with both hands and pull forward, then down.



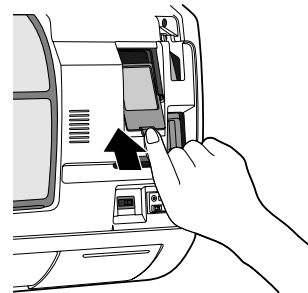
7 Attaching the Nano-Titanium Disinfecting Deodorizing/Dust Collecting Fresh Air In Filter Case

- Improper filter installation may result in abnormal noises.

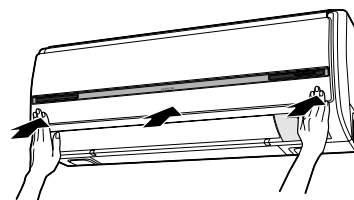


9 Attaching the Exhaust Pre-Filter

- Please hold the handle and attach the filter by pushing it along the inner grooves until the filter clicks.



- Keep pressing the front panel in the direction of the arrow (3 places) until the panel clicks with both hands and pull forward, then down.



CAUTION

- **Do not operate with the duct filter removed.**
Dust or odors may infiltrate the room and may cause the device to malfunction.

⚠ CAUTION

Cleaning and maintenance must be carried out only by qualified service personal. Before cleaning, stop operation and switch off the power supply.

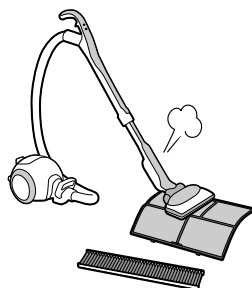
1. PRE-FILTER

When the filter indicator lamp comes on, be sure to clean the filter. By doing so, the power rates are saved. In case the air filter is full of dust, the air flow will decrease and the cooling capacity will be reduced. Further, noise may occur. Be sure to clean the filter following the procedure below.

PROCEDURE

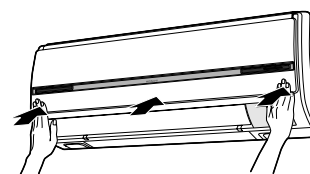
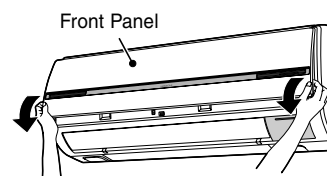
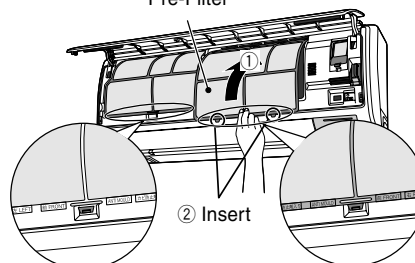
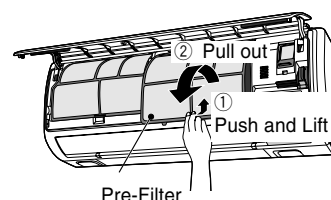
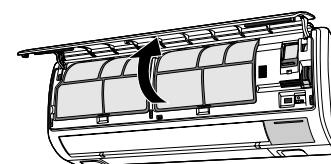
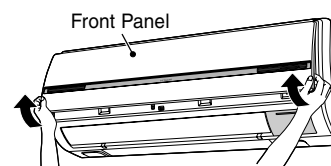
1 Open the front panel carefully and remove the filter.

2 Vacuum dust from the pre-filter using vacuum cleaner. If there is too much dust, wash the filter with detergent and rinse it thoroughly. After that, dry it in the shade.



3

- Set the filter with "FRONT" mark facing front, and slot them into the original state.
- After attaching the filters, push the front panel at three arrow portions as shown in figure and close it.

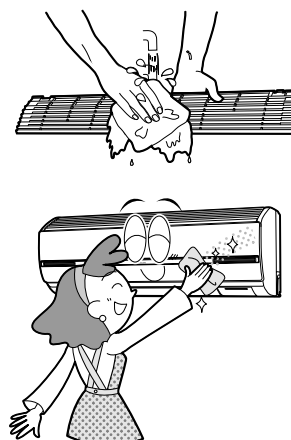


⚠ CAUTION

- Do not wash with hot water at more than 40°C. The filter may shrink.
- When washing it, shake off moisture completely and dry it in the shade; do not expose it directly to the sun. The filter may shrink.
- Don't operate the unit without filter. Fault may occur if you continue.

2. CLEANING OF FRONT PANEL AND TOP GRILL

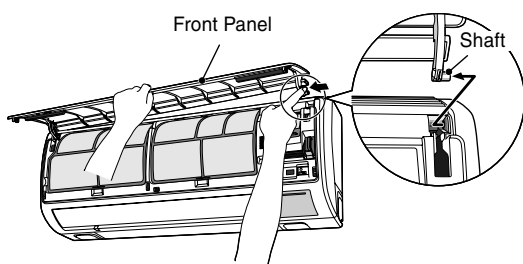
- Remove the front panel and the top grill and wash with clean water.
Wash it with a soft sponge.
After using neutral detergent, wash thoroughly with clean water.
- When the front panel and the top grill are not removed, wipe it with a soft dry cloth. Wipe the remote controller thoroughly with a soft dry cloth.
- Wipe the water thoroughly.
If water remains at indicators or signal receiver of indoor unit, it causes trouble.



Method of removing the front panel

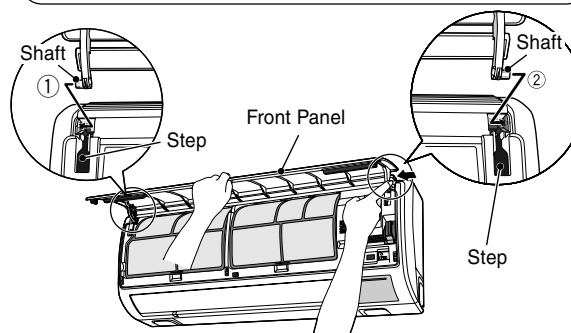
Be sure to hold the front panel with both hands to detach and attach it.

Removing the Front Panel



- When the front panel is fully opened with both hands, push the right arm to the inside to release it, and while closing the front panel slightly, put it out forward.

Attaching the Front Panel

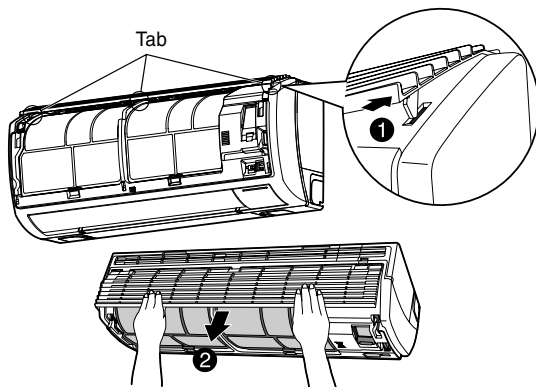


- Move the shafts of the left and right arms into the steps in the unit and securely insert them into the holes.

Removing and attaching the top grill

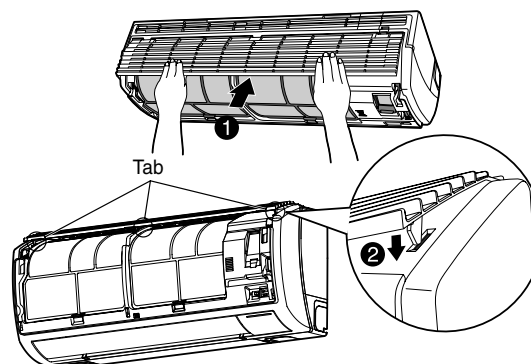
Removing

- Lift up while pressing the top grill and remove from tab. (3 places: left, centre and right)
- Pull forward.



Attaching

- Position the "↑" sign away. Slide along the top of the indoor device and press.
- Press the top grill down and affix with the hold down tab.



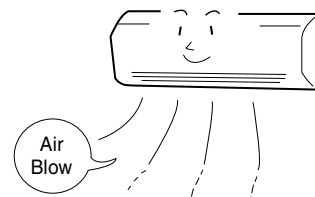
⚠ CAUTION

- Do not splash or direct water to the body of the unit when cleaning it as this may cause short circuit.
- Never use hot water (above 40°C), benzine, gasoline, acid, thinner or a brush, because they will damage the plastic surface and the coating.



3. MAINTENANCE AT BEGINNING OF LONG OFF PERIOD

- Run the unit by setting the operation mode to FAN and the fan speed to HI for about half a day on a fine day, and dry the whole of the unit.
- Switch off the power plug or turn off the circuit breaker.

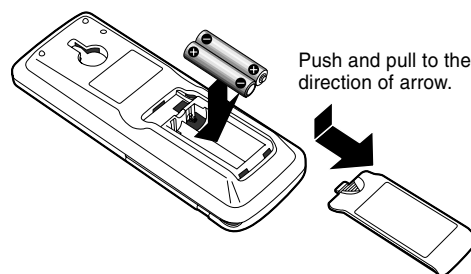


HOW TO EXCHANGE THE BATTERIES IN THE REMOTE CONTROLLER

- 1 Remove the cover as shown in the figure and take out the old batteries.



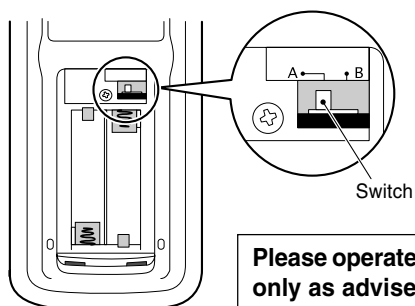
- 2 Install the new batteries.
The direction of the batteries should match the marks in the case.



⚠ CAUTION

1. Do not use new and old batteries, or different kinds of batteries together.
2. Take out the batteries when you do not use the remote controller for 2 or 3 months.

Address Changing Switch

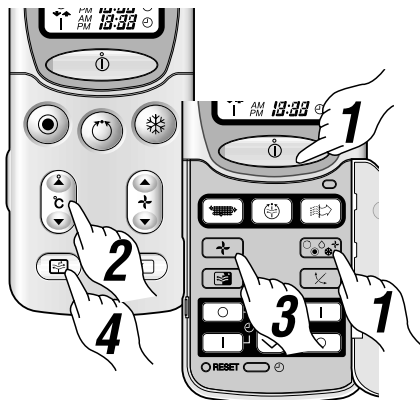


- * The Address Changing Switch is utilized to avoid interference between remote controllers when there are two indoor units mounted in the same room and is normally not utilized.
(When the device is shipped out of the factory, it is set to "A".)
Furthermore, please ask the dealer where the device was purchased, how the device is configured.

MAINTENANCE (Two Way Air Exchange Fan and Hose)

■ To ensure clean usage, please dry the interior of the Two Way Air Exchange Fan and Hose.

- If this is the first time during the year (seasons) that the device is being used to cooling or dehumidifying operation, please conduct one of the following maintenance procedures.
- If this is the first time during the year (seasons) that the device is being used to heat, please conduct one of the following maintenance procedures.
- If odors from the fresh air window are a concern, even if maintenance has been conducted on the duct filters, please conduct one of the following maintenance procedures.



Maintenance During the Summer

- After sealing the room, please conduct the following for 4 hrs..

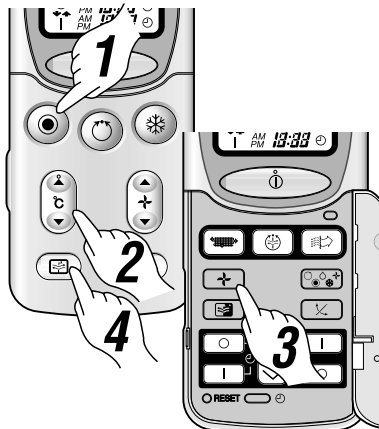
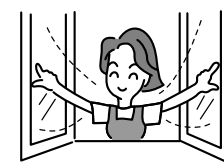
- 1** Please perform dehumidify operation.
- 2** Please set the temperature to 24°C.
- 3** Please set the fan speed to "SILENT".
- 4** Please perform the exhaust (HI) operation.



Maintenance During the Autumn or Rainy Season

- After opening the room, please conduct the following for 4 hrs..

- 1** Please perform heat operation.
- 2** Please set the temperature to 32°C.
- 3** Please set the fan speed to "SILENT".
- 4** Please perform the exhaust (HI) operation.

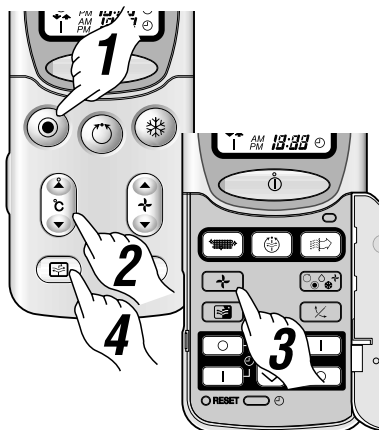


- If the outside temperature is above 24°C, please conduct maintenance by following the "Maintenance During the Summer" procedures. (When the outside temperature exceeds 24°C, the machine does not operate the heater to prevent any damage.)

Maintenance During the Winter

- After opening the room, please conduct the following for 4 hrs..

- 1** Please perform heat operation.
- 2** Please set the temperature to 32°C.
- 3** Please set the fan speed to "SILENT".
- 4** Please perform the exhaust (HI) operation.



CAPABILITIES

Heating Capability

- This room air conditioner utilizes a heat pump system that absorbs exterior heat and brings it into a room to be heated. As the ambient temperature gets lower, heating capability will also lower. In such a situation, the inverter work to increase compressor rpm to keep the unit's heating capability from decreasing. If the unit's heating performance is still unsatisfactory, other heating appliances should be used to augment this unit's performance.
- The air conditioner is designed to heat an entire room so that it may take some time before you feel warm. Timer operation is recommended for effective preheating ahead of the desired time.

CAUTION

Do not use a stove or any other high temperature devices in proximity to the indoor unit.



PROHIBITION

Cooling and Dehumidifying Capabilities

- If the heat present in a room exceeds the unit's cooling capacity (for example, if there are many people in the room or other heating appliances are used), the preset room temperature may not be reached.

VARIOUS FUNCTIONS

- When fan speed, room temperature are set with the remote controller before starting manual operation and the buttons are released, the indication of settings will go off in 10 seconds and only the operation mode will be displayed.
- Pressing the button while the unit is in operation will let the protective circuit work so that the unit will not operate for approximately 3 minutes.
- During heating operation, the "OPERATION" lamp on the indoor unit indicators may blink with no air emitted for a while.
- If you feel cold wind during heating operation with the (HI) fan speed or want to make the unit operation quieter after the room is heated, use of (AUTO) setting is recommended.
- With the (LOW), (SILENT) settings, the unit's cooling capacity will lower slightly.
- With the (LOW), (SILENT) settings, the unit's fan speed of heating operation will vary with the operating conditions.

TIMER PROGRAMMING/SLEEP TIMER OPERATION

- When the timer has been programmed, the unit will not operate even if the set time is reached unless the unit receives a signal from the remote controller. Confirm that timer programming is complete (beep) and the TIMER lamp of the indoor unit lights.
- If the (SLEEP) button is pressed while the ON/OFF timer is programmed, the sleep timer takes priority.
- During sleep timer operation, the fan speed sets to (SILENT) regardless of the preset speed. The remote controller display indication will remain unchanged even with the (SILENT) setting.

UNDERSTANDING THE OPERATING MECHANISM

Air Purifier Operation (Page 17)

- When the two way air exchange operation is configured during the air purifier operation, the fan speed operation (heating, cooling and dehumidifying operation when the heating, cooling and dehumidifying of the device are combined) is combined with the two way air exchange operation.

Two Way Air Exchange Operation (Page 18)

■ Fresh Air In Operation

- When the air temperature outside the room is more than about 30°C or less than about 3°C, the fresh air in does not operate to prevent dew condensation on the two way air exchange fan and hose and to save energy.
- If the difference in temperature between the inside and outside of the room is more than about 7°C, the fresh air in does not operate to prevent dew condensation on the two way air exchange fan and hose, while cooling operation.
- If the difference in temperature between the inside and outside of the room is more than about 22°C, the fresh air in does not operate to prevent dew condensation on the two way air exchange fan and hose, while heating operation.
- When the above mentioned operations have stopped, the “Two Way Air Exchange” lamp on the indoor unit indicators blinks (lights for 10 seconds/light off for 1 second).**

WARNING

- When the humidity inside the room is HIGH (more than 70%), do not use the fresh air in operation.**
Dew condensation may be the cause of failure.

■ Exhaust Operation

- When the temperature inside the room is more than about 43°C, the exhaust does not operate to protect the exhaust fan from damage.
- When the above mentioned operation has stopped, the “Two Way Air Exchange” lamp on the indoor unit indicators blinks (lights for 10 seconds/light off for 1 second).**

■ Abnormal of Two Way Air Exchange Fan

- Two Way Air Exchange Fan is abnormal if the “Two Way Air Exchange” lamp of the indoor unit indicators blinks (lights for 4 seconds/light off for 1 second) repeatedly.
In this case, all the functions can be operated except for the Two Way Air Exchange operation.

■ Sound of the Two Way Air Exchange Operation

| Type of operation | Operating sound |
|--------------------|---|
| “HI” Fresh Air In | About the same when cooling (Fan Speed: “HI”). |
| “MED” Fresh Air In | About the same when cooling (Fan Speed: “MED”). |
| “LOW” Fresh Air In | About the same when cooling (Fan Speed: “LOW”). |
| “HI” Exhaust | About the same when cooling (Fan Speed: “HI”). |
| “MED” Exhaust | About the same when cooling (Fan Speed: “MED”). |
| “LOW” Exhaust | About the same when cooling (Fan Speed: “LOW”). |

* These are just rough indications when the fresh air in and exhaust operate independently. In addition, the operating volume of the air conditioning changes according to the mounting conditions.
If the air conditioning operation is configured at the same time, the volume of the operation sound becomes bigger.

Sleep Timer Operation (Page 22)

- If the remote controller never receive the signal when sleep timer is set, it does not start to operate even when reaching the set time. Please confirm the sleep timer setting by the “beep” sound and the “TIMER” lamp on the indoor unit.
- If the vertical deflector are configured to swing while the Sleep Timer is set, it will not swing when 1hr. More Timer operates during cooling/dehumidifying or Sleep (7 hrs. Monitoring) operation during heating.
- When sleep timer setting, if the air conditioning operation (cooling, dehumidifying, heating) is configured in combination with the fresh air in, exhaust and air purifier, 1 hr. More Timer of the cooling and dehumidifying operation or Sleep (7 hrs. Monitoring) timer operation during heating only the air conditioning operation performs.

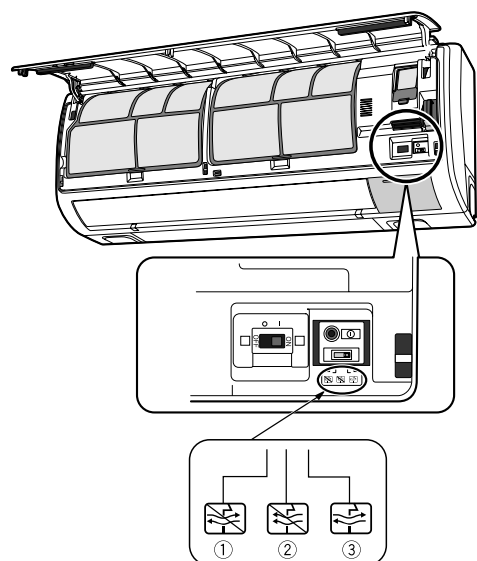
UNDERSTANDING THE OPERATING MECHANISM

Fresh Air In During Sleep Mode Operation (Page 23)

- By configuring Fresh Air In During Sleep Mode, the air conditioning operates the fresh air in during sleep mode operation (while cooling or dehumidifying) when the outside air temperature is lower than room temperature.
- If “Sleep Timer” operation of the air purifier is performed while the Fresh Air In During Sleep Mode is configured, ventilating operation that takes the air from the outside into the room air conditioning fan when the outside air temperature is lower than room temperature.
- If the room temperature decreases about 2°C below than configured temperature while fresh air in operating, the fresh air in operation will be stopped.
- The fan speed cannot be adjusted in fresh air in during sleep mode.
- If the heating operation is performed while the Fresh Air In During Sleep Mode is configured, Fresh Air In During Sleep Mode operation will be canceled, however, when the heating operation is stopped, the mode returns to Fresh Air In During Sleep Mode settings.
- If the fresh air in/exhaust operation is performed while the Fresh Air In During Sleep Mode is configured, Fresh Air In During Sleep Mode operation will be canceled, however, when the fresh air in/exhaust operation is stopped, the mode returns to Fresh Air In During Sleep Mode settings.
- The fresh air in does not operate depending on the room temperature/outside air temperature.

Installing the Device when the Two Way Air Exchange Cannot Operate

- If the installation work specified for the embedded ducting cannot be vented the two way air exchange hose outside the room, please select “Only Exhaust” or “Prohibit Two Way Air Exchange”.



Two Way Air Exchange Selection Switch

- ① Prohibit Two Way Air Exchange
② Only Exhaust
③ Operate Two Way Air Exchange

When selecting “Prohibit Two Way Air Exchange”

- When the two way air exchange hose cannot be vented outside of the room directly (installation work specified for the embedded ducting).
- When there is a source of odor, smoke, or oily smoke in the vicinity of the exit of the two way air exchange hose, even if the installation work directly vents the two way air exchange hose outside the room.

When selecting “Only Exhaust” (only exhaust operation can be operated)

- When there is some space to vent the two way air exchange hose between the internal and external walls, which leads outside the room, even if the two way air exchange hose cannot be vented outside of the room directly (conventional construction methods).
- **There is a restriction to the length of the two way air exchange hose (maximum length is 3m).**
- **Please consult your local dealer where the device was purchased regarding the details of installation work.**

⚠ CAUTION

- Do not supply air from inside the wall.
- By supplying highly humid air from inside a wall or from underneath the floor, this will cause dew to form.
- And also may cause the odors from inside a wall or from underneath the floor to infiltrate the room.

UNDERSTANDING THE OPERATING MECHANISM

Automatic Two Way Air Exchange Operation

- The Dirt Sensor detects cigarette smoke, sprays (pesticides), alcohol, etc.
- The Dirt Sensor may also respond to sudden temperature changes when the cooling/heating operation starts and sudden changes in airflow when doors open and close.
- The automatic two way air exchange can be configured for two weeks at one time. The ☺ (AUTOMATIC TWO WAY AIR EXCHANGE) is configured for two weeks after it is set with the remote controller.
- Even the air in the room is dirty after the automatic two way air exchange operation has been configured, the exhaust operation does not perform for 5 minutes.
- In the case the automatic two way air exchange operation performs during the air conditioning operation, the exhaust or fresh air in operates in addition to the air conditioning.
- Once the dirt sensor detects the dirt and starts exhaust operation, even you open the window after that the exhaust operates for at least 20 minutes and then operates the fresh air in.
- The two way air exchange operation does not perform depending on the room temperature/outside air temperature.

⚠ CAUTION

- Exhaust operation may not perform in Automatic Two Way Air Exchange Operation when the air inside the room is dirt.
In this case, please operate Exhaust operation manually by pressing the ☺ (Two Way Air Exchange) button or open the windows for ventilation.

Changing the Sensitivity of the Dirt Sensor



■ There are 7 levels of sensitivity

- 1 Press the ☺ button while the operation is stopped.**
(Please operate either the fresh air in or the exhaust. Select the fan speed "HI", "MED" or "LOW".)
- 2 The sensitivity can be selected with the Room Temperature button.**
⬆/⬇ sensitivity increase/sensitivity decrease
 - Increasing the sensitivity by one level displays "+1".
 - Decreasing the sensitivity by one level displays "-1".
 - The configuration range has 7 levels: +3 - -3.
 - The +3 - -3 display will turn off after about 10 seconds.
- 3 Please stop the operation with the Ⓜ button.**

Self Clean Operation (Page 19)

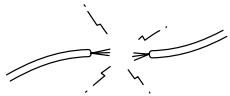
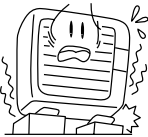
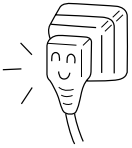
- By setting Self Clean operation, it automatically starts self clean operation after stopping the cooling and dehumidifying operations. First, wash the odor components attached to the indoor heat exchanger due to the "FAN" operation (combined with the exhaust). Next, "HEATING" (combined with the exhaust), "ONLY EXHAUST" and "FAN" operation (combined with the exhaust) are performed to suppress the outbreak of mold in the indoor unit.
- If the outside air temperature is low, the cooling and dehumidifying may not operate.
- If the ON-TIMER has been configured, the Self Clean operation does not perform two hours before the configured time.
- If the operation is stopped in the following conditions, the Self Clean operation does not perform. (Heating and Air purifying operations, stopped by pressing OFF-TIMER or SLEEP TIMER.)

Timer Settings

- If the remote controller never receive the signal when timer is set, it does not start to operate even when reaching the set time. Please confirm the timer setting by the "beep" sound and the "Timer" lamp on the indoor unit.
- When the dehumidifying is operated while the timer is configured, the timer settings will disappear from the LCD, but the setting is not canceled. When the dehumidifying operation is stopped, the timer settings will display again.

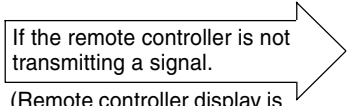
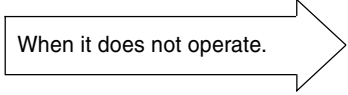
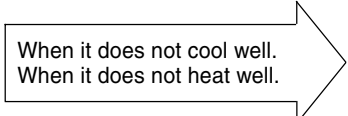
REGULAR INSPECTION

PLEASE CHECK THE FOLLOWING POINTS EVERY EITHER HALF YEARLY OR YEARLY. CONTACT YOUR SALES AGENT SHOULD YOU NEED ANY HELP.

| | | | |
|---|---|----------------------------|--|
| 1 |  | ⚠ WARNING | Check to see if the unit's earth line has been connected correctly. If the earth line is disconnected or faulty, unit failure or electric shock hazard may result. |
| 2 |  | ⚠ WARNING | Check to see if the mounting frame has rusted excessively or if the outdoor unit has tilted or become unstable. It could collapse or fall, causing injury. |
| 3 |  | ⚠ WARNING | Check to see if the power plug is securely inserted into the wall socket. If the power plug is not inserted into the wall socket securely, it will become hot and an electric shock or fire may occurred. If dust or dirt is found on the power plug, clean the plug and insert it into the wall socket. |

AFTER SALES SERVICE AND WARRANTY

WHEN ASKING FOR SERVICE, CHECK THE FOLLOWING POINTS.

| CONDITION | CHECK THE FOLLOWING POINTS |
|--|--|
|  <p>If the remote controller is not transmitting a signal. (Remote controller display is dim or blank.)</p> | <ul style="list-style-type: none"> • Do the batteries need replacement? • Is the polarity of the inserted batteries correct? |
|  <p>When it does not operate.</p> | <ul style="list-style-type: none"> • Is the fuse all right? • Is the voltage extremely high or low? • Is the circuit breaker "ON"? • Is the power plug inserted? • Do you have any power cut? |
|  <p>When it does not cool well. When it does not heat well.</p> | <ul style="list-style-type: none"> • Is the air filter blocked with dust? • Is the set temperature suitable? • Have horizontal air deflectors been adjusted to their correct positions according to the operation mode selected? • Are the air inlets or air outlets of indoor and outdoor units blocked? • Is the fan speed "LOW" or "SILENT"? |

■ The following phenomena do not indicate unit failure.

| | |
|---|--|
| During heating, the operation indicator blinks and air blow stops | <p><Operation start> The unit is preparing to blow warm air. Please wait.</p> <p><In operation> The outdoor unit is defrosting. Please wait.</p> |
| Hissing or fizzy sounds | Refrigerant flow noise in the pipe or valve sound generated when flow rate is adjusted. |
| Squeaking noise | Noise generated when the unit expands or contracts due to temperature changes. |
| Rustling noise | Noise generated with the indoor unit fan's rpm changing such as operation start times. |
| Clicking noise | Noise of the motorized valve when the unit is switched on. |

| | |
|---|---|
| Perking noise | Noise of the ventilation fan sucking in air present in the drain hose and blowing out dehumidifying water that had accumulated in the condensed water collector. For details, consult your sales agent. |
| Changing operation noise | Operation noise changes due to power variations according to room temperature changes. |
| Mist emission | Mist is generated as the air within the room is suddenly cooled by conditioned air. |
| Steam emitted from the outdoor unit | Water generated during defrosting operation evaporates and steam is emitted. |
| Odors | Caused as the smells and particles of smoke, food, cosmetics, etc. present in room air become attached the unit and blown off into the room again. |
| The outdoor unit continues to operate even if operation is stopped. | Defrosting is underway (as the heating operation is stopped, the microcomputer checks frost accumulated in the indoor unit and instructs the unit to perform automatic defrosting if necessary). |
| The OPERATION lamp is blinking. | Shows preheating or defrosting operation is underway. As the protective circuit or preheat sensor operates when unit operation is stopped during preheating and then restarted, or when operation mode is switched from cooling to heating, the lamp continues to blink. |
| Does not reach the temperature setting. | Actual room temperature may deviate slightly from the remote controller's temperature setting depending on the number of people in the room, indoor or outdoor conditions when the air conditioner is used for more than one room at the same time. |

- If the unit still fails to operate normally after performing the above inspections, turn the circuit breaker off and contact your sales agent immediately.

Contact your sales agent immediately if the following phenomena should occur:

- The circuit breaker switches off or the fuse blows frequently.
 - The switch operation is not stable.
 - Foreign matter or water accidentally enters the unit interior.
 - The power cord gets excessively hot or its insulation is torn or stripped.
 - TIMER lamp or FILTER lamp on the indoor unit indicators blinks.
- (As the nature of the failure can be identified by the blinking cycle, check the blinking cycle before turning off the circuit breaker.)



Notes



- In quiet operation or stopping the running, the following phenomena may occasionally occur, but they are not abnormal for the operation.
 - (1) Slight flowing noise of refrigerant in the refrigerating cycle.
 - (2) Slight rubbing noise from the fan casing which is cooled and then gradually warmed as operation stops.
- The odor will possibly be emitted from the room air conditioner because the various odor, emitted by smoke, foodstuffs, cosmetics and so on, sticks to it. So please clean the air filter and the evaporator regularly to reduce the odor.

- Please contact your sales agent immediately if the air conditioner still fails to operate normally after the above inspections. Inform your agent of the model of your unit, production number, date of installation. Please also inform him regarding the fault.

Please note:

On switching on the equipment, particularly when the room light is dimmed, a slight brightness fluctuation may occur. This is of no consequence.

The conditions of the local Power Supply Companies are to be observed.