

HITACHI

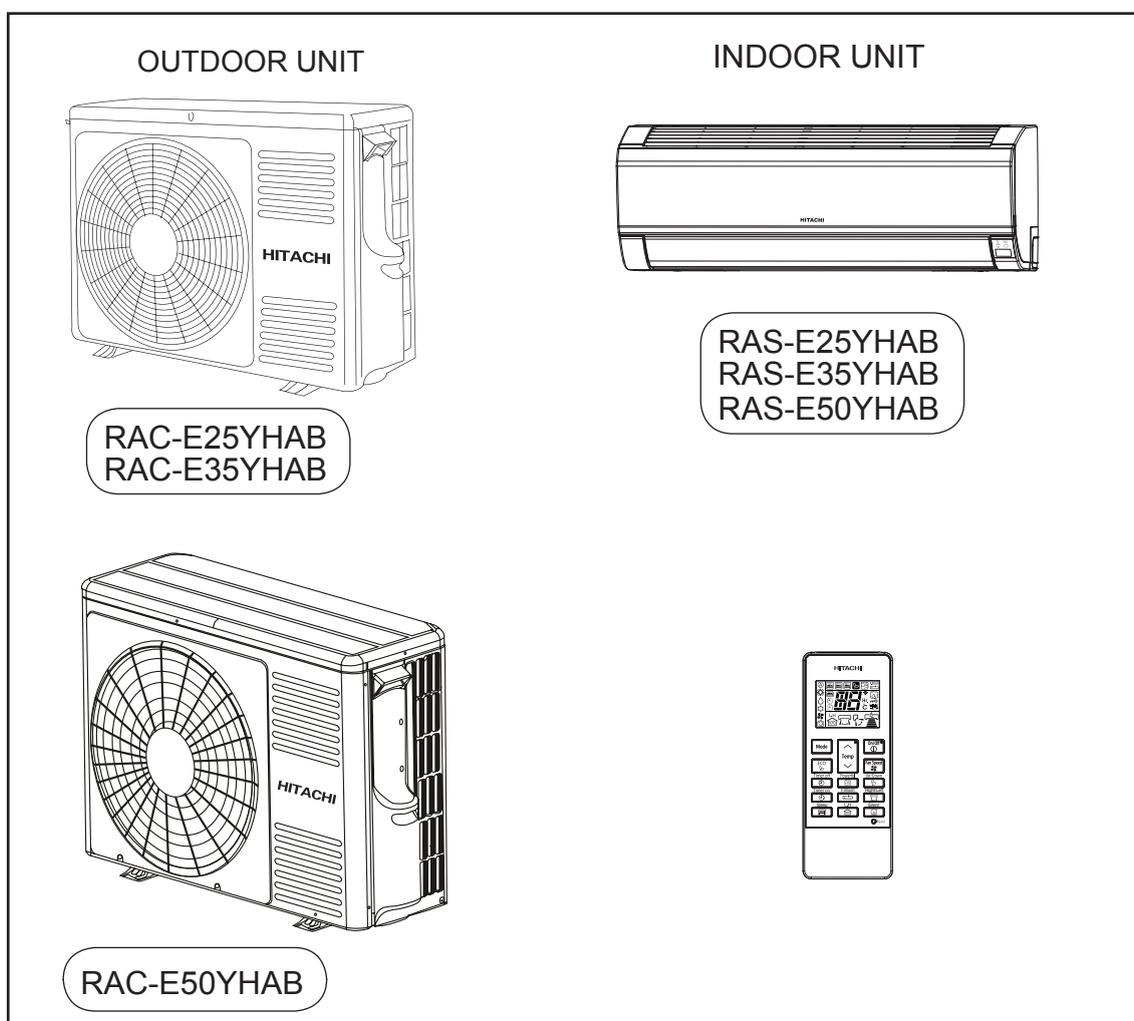
SPLIT TYPE AIR CONDITIONER

INDOOR UNIT/OUTDOOR UNIT



MODEL

RAS-E25YHAB / RAC-E25YHAB
 RAS-E35YHAB / RAC-E35YHAB
 RAS-E50YHAB / RAC-E50YHAB



Instruction manual

Page 1~23

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

SAFETY PRECAUTION



This appliance is filled with R32.

- 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.)



Make sure to connect earth line.



This sign in the figure indicates prohibition.



Indicates the instructions that must be followed.

- The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children being supervised not to play with the appliance.
- Please keep this manual after reading.

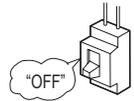
PRECAUTIONS DURING INSTALLATION

 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. 	 <small>PROHIBITION</small>
	<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. 	 <small>CONNECT EARTH LINE</small>
	<ul style="list-style-type: none"> • Be sure to use the specified piping set for R32. Otherwise, this may result in broken copper pipes or faults. 	
	<ul style="list-style-type: none"> • If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent. 	
 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 a 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. 	 <small>PROHIBITION</small>
	<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 220-240V power source is used. The use of other power sources may cause electrical components to overheat and lead to fire. 	 <small>PROHIBITION</small>

PRECAUTIONS DURING SHIFTING OR MAINTENANCE

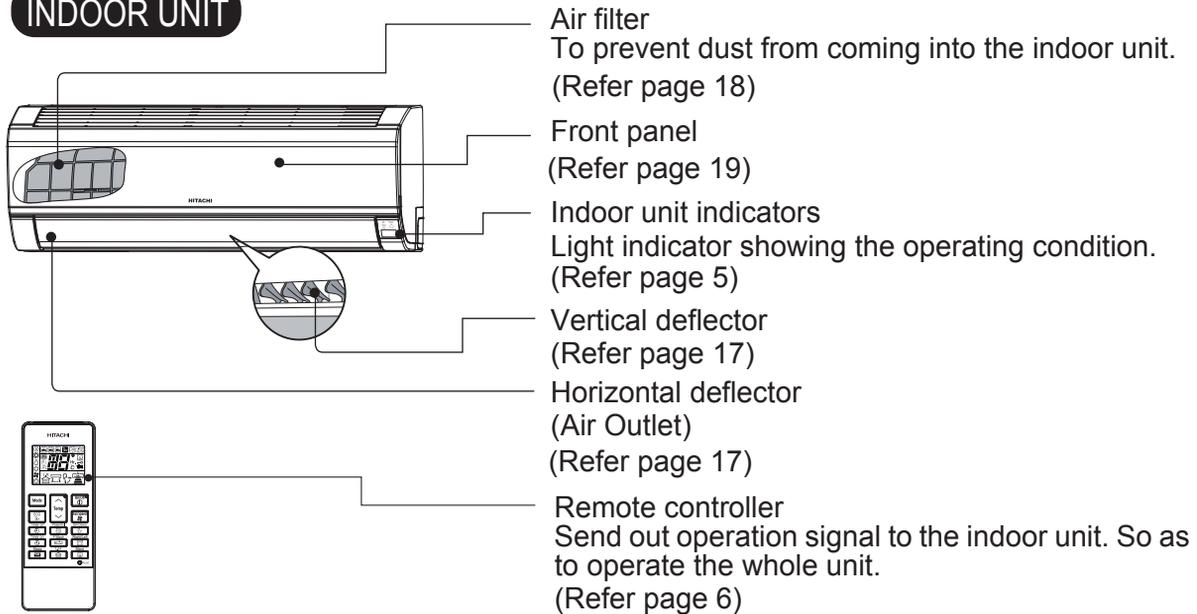
 WARNING	<ul style="list-style-type: none"> • Should abnormal situation arise (like burning smell), please stop operating the unit and remove plug from the socket or turn off the circuit breaker. Contact your agent. Fault, short circuit or fire may occur if you continue to operate the unit under abnormal situation. 	 <small>OFF</small>
	<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. 	 <small>PROHIBITION</small>
	<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. 	 <small>PROHIBITION</small>
	<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. 	 <small>PROHIBITION</small>
	 <small>PROHIBITION</small>	<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

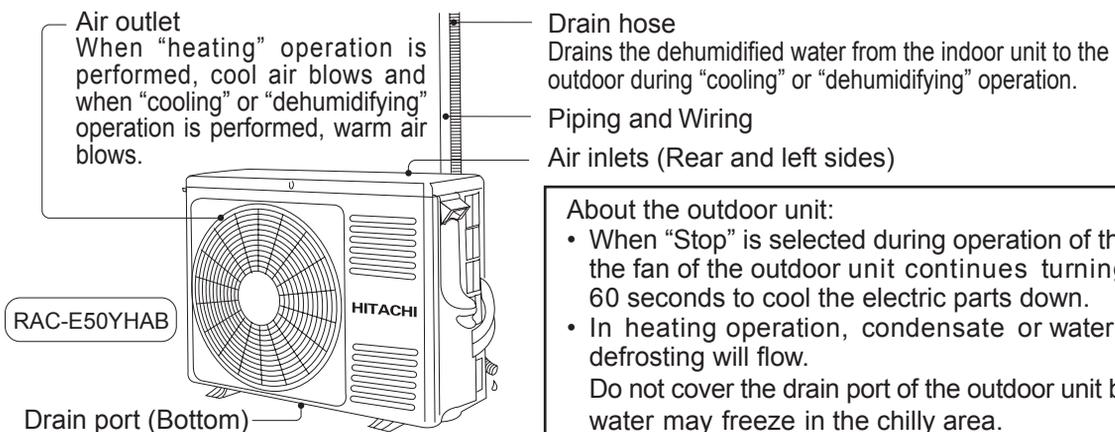
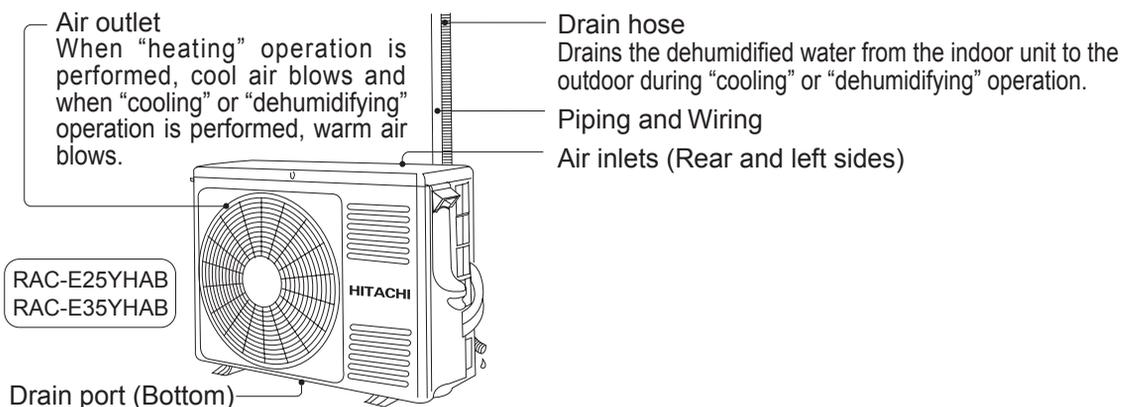
 WARNING	<ul style="list-style-type: none"> Do not use any conductor as fuse wire, this could cause fatal accident.  PROHIBITION
	 <ul style="list-style-type: none"> During thunder storm, disconnect the plug top or turn off the circuit breaker.
	<ul style="list-style-type: none"> Spray cans and other 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.  PROHIBITION
 CAUTION	<ul style="list-style-type: none"> The product shall be operated under the manufacturer specification and not for any other intended use.  PROHIBITION
	 DON'T WET <ul style="list-style-type: none"> Do not attempt to operate the unit with wet hands, this could cause fatal accident.
	<ul style="list-style-type: none"> When operating the unit with burning equipments, regularly ventilate the room to avoid oxygen insufficiency.  STRICTLY OBSERVE PRECAUTIONS
	 PROHIBITION <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.
	<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.  PROHIBITION
	 PROHIBITION <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 shock.
	<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.  PROHIBITION
	 PROHIBITION <ul style="list-style-type: none"> Do not climb on the outdoor unit or put objects on it.
	<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.  PROHIBITION
	 PROHIBITION <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.
	<ul style="list-style-type: none"> This appliance especially 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.  PROHIBITION
	 DON'T TOUCH <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.
<ul style="list-style-type: none"> Do not touch the refrigerant pipe and connecting valve. Burns may result.  DON'T TOUCH	
<ul style="list-style-type: none"> This appliance is not intended for use by young children or infirm persons unless they have been adequately supervised by a responsible person to ensure that they can use this appliance safely. Young children should be supervised to ensure that they do not play with the appliance. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. 	

NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT



OUTDOOR UNIT



About the outdoor unit:

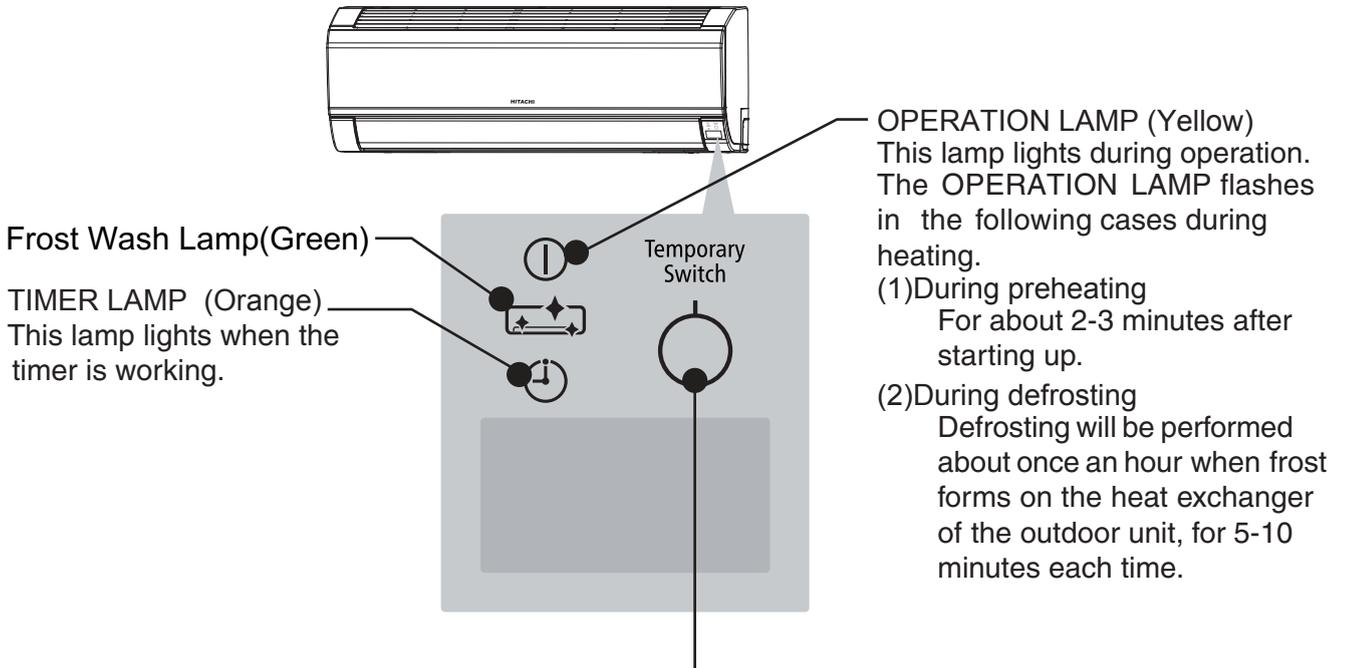
- When "Stop" is selected during operation of the indoor unit, the fan of the outdoor unit continues turning for 10 to 60 seconds to cool the electric parts down.
- In heating operation, condensate or water due to defrosting will flow.
Do not cover the drain port of the outdoor unit because such water may freeze in the chilly area.
- When the outdoor unit is hung on the ceiling, install the bush and drain pipe on the drain port and drain water.

MODEL NAME AND DIMENSIONS

MODEL	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)
RAS-E25\35\50YHAB/	780	280	230
RAC-E25YHAB\RAC-E35YHAB	750	548	288
RAC-E50YHAB	792	600	299

NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT INDICATIONS



TEMPORARY SWITCH

Use this switch to start and stop when the remote controller does not work.

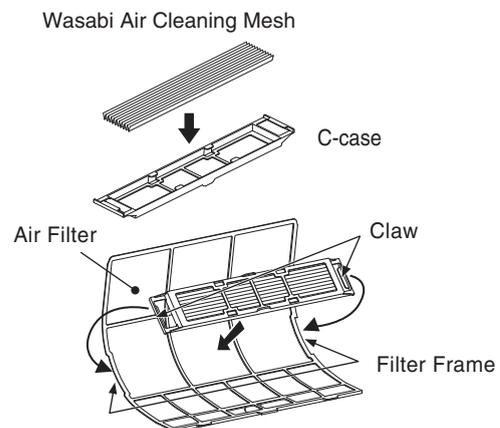
- By pressing the temporary switch, the operation is done in automatic mode.
- When the operation is done using the temporary switch after the power source is turned off and turn on again, the operation is done in automatic mode.

CAUTION

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

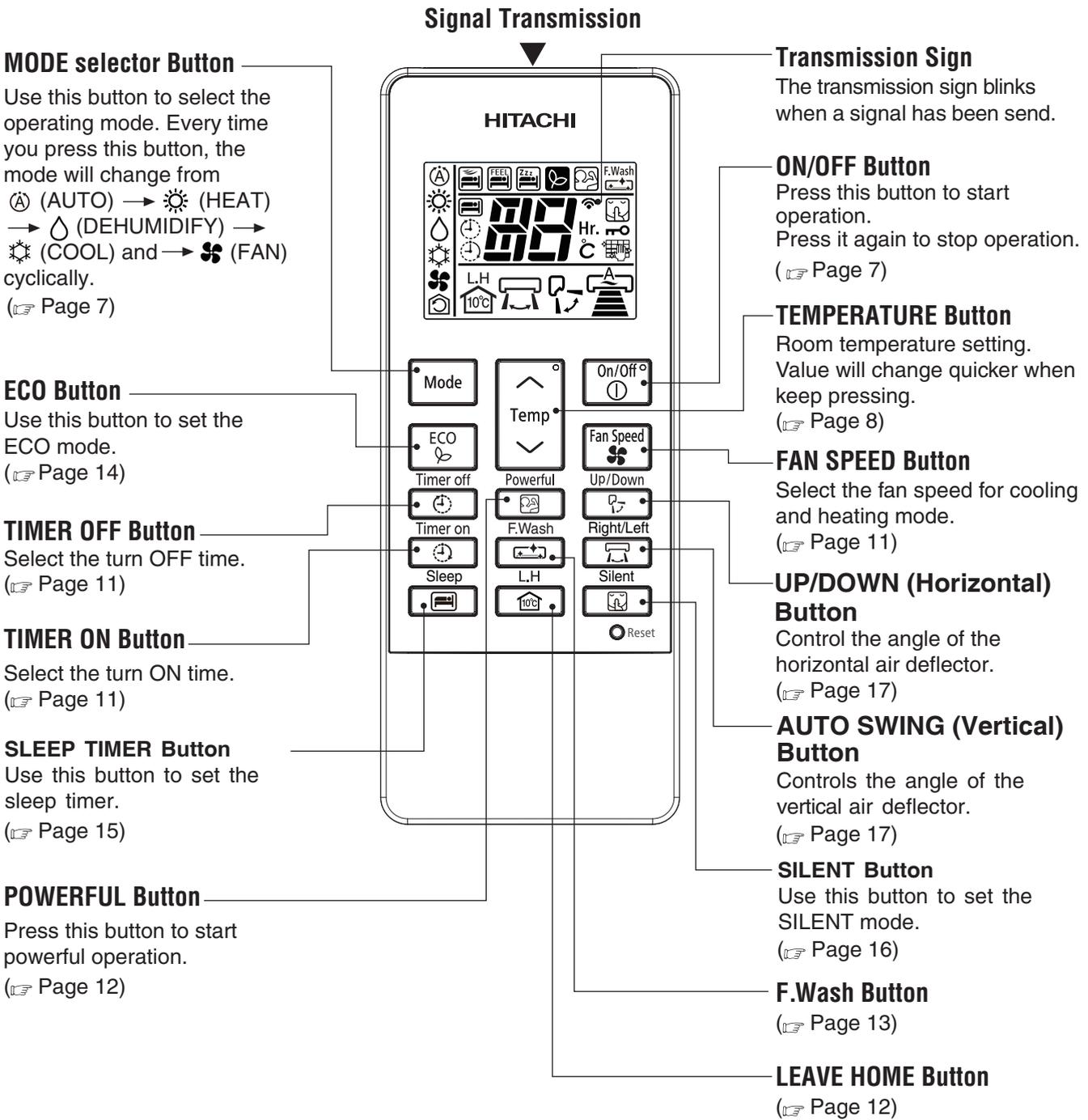
☆ If the power stays on and the unit is not operated, power is slightly consumed in the control circuit. The power is saved by turning off the power switch (or the circuit breaker when the power is supplied from the outdoor unit).

- Attaching the Wasabi Air Cleaning Mesh (Accessories) to the filter frame.
 - Attach the Wasabi Air Cleaning Mesh to the C-case by gently compress its both sides and release after insertion into filter frame.
 - The cooling capacity is slightly weakened and the cooling speed becomes slower when the Wasabi Air Cleaning Mesh are used.
 - Wasabi Air Cleaning Mesh are washable and reusable up to 20 times by using vacuum cleaner or water rinse under running tap water. When you want to renew it, please ask your sales agent. Optional air cleansing and deodorizing filters.



NAMES AND FUNCTIONS OF REMOTE CONTROLLER

■ This controls the operation function and timer setting of the room air conditioner. The range of control is about 7 meters. If indoor lighting is controlled electronically, the range of control may be shorter.



Precautions for Use

- Do not put the remote controller under direct sunlight and high temperature.
- Do not drop it on the floor, and protect it from water.
- If you press the FUNCTION button during operation, the air conditioner may stop for about 3 minutes for protection before you can start it again.

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 current room temperature. The selected mode of operation will change when the room temperature varies. However, the mode of operation will not change when indoor unit is connected to multi type outdoor unit.

1 Press the MODE selector button so that the display indicates the **(A)** (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. However the mode of operation will not change when indoor unit is connected to multi type outdoor unit.
- If the mode automatically selected by the unit is not satisfactory, manually change the mode setting (HEAT, DEHUMIDIFY, COOL or FAN).

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

→ **(AUTO)** → **(HIGH)** → **(MED)** → **(LOW)** → **(SILENT)** →

3 Set the desired room temperature with the TEMPERATURE buttons (the display indicates the setting).
The temperature setting and the actual room temperature may vary depending on conditions.
Temperature range can be set between 16°C and 32°C.

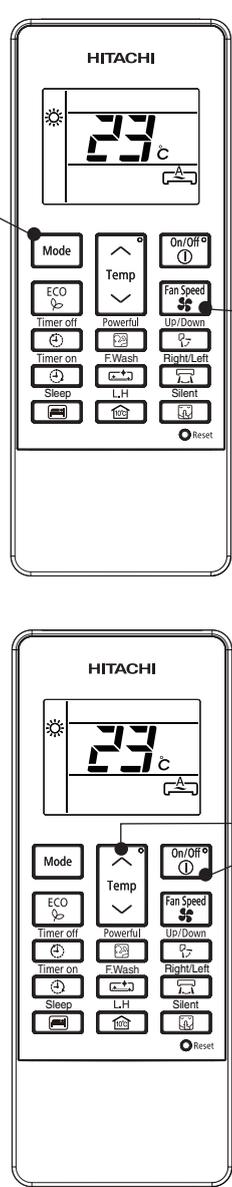
START STOP Press the **(ON/OFF)** button.
Operation starts with a beep.
Press the button again to stop operation.

■ As the settings are stored in the memory of the remote controller, you only have to press the **(ON/OFF)** button next time.

Press the **(FAN SPEED)** button to select AUTO, HIGH, MED, LOW or 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.



1 Press the MODE selector button so that the display indicates ☀ (HEAT).

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

→ 🌀 (AUTO) → 🌀 (HIGH) → 🌀 (MED) →
 ← 🌀 (SILENT) ← 🌀 (LOW) ←

3 Set the desired room temperature with the TEMPERATURE buttons (the display indicates the setting).
 The temperature setting and the actual room temperature may vary depending on conditions.
 Temperature range can be set between 16°C and 32°C.

START STOP Press the ⏻ (ON/OFF) button. Heating operation starts with a beep. Press the button again to stop operation.

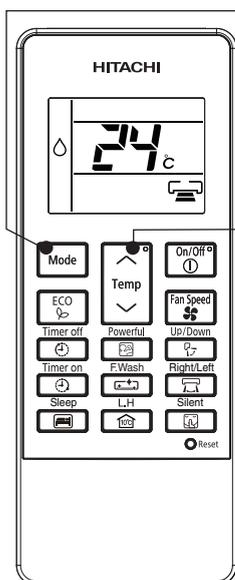
- As the settings are stored in the memory of the remote controller, you only have to press the ⏻ (ON/OFF) button next time.
- During AUTO fan, the fan speed automatically changes as below:
 - When the difference between room temperature and setting temperature is large, fan starts to run at HI speed.
 - After room temperature reaches the preset temperature, fan speed will be changed to lower speed to obtain optimum room temperature condition for natural healthy heating.

■ 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 2 seconds on and 1 second off.
 The maximum time for defrosting is 20 minutes.
 However, if the indoor unit is connected to multi type outdoor unit, the maximum time for defrosting is 15 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 MODE selector button so that the display indicates ◯ (DEHUMIDIFY).
The fan speed is set at LOW.
Press  (FAN SPEED) button to select SILENT or LOW fan speed.

2

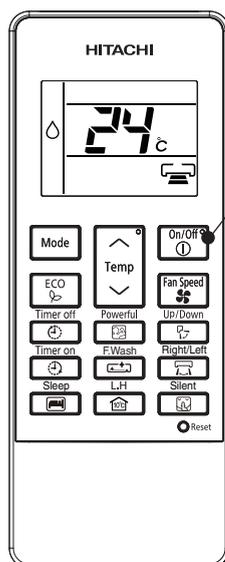
Set the desired room temperature with the ROOM TEMPERATURE setting buttons (the display indicates the setting).



The range of 20°C to 26°C is recommended as the room temperature for dehumidifying.
Temperature range can be set between 16°C and 32°C.

START
STOP

Press the  (ON/OFF) button. Dehumidifying operation starts with a beep. Press the button again to stop operation.



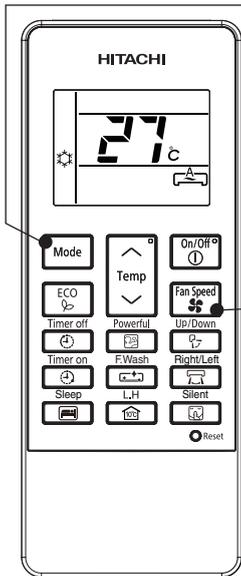
- As the settings are stored in the memory of the remote controller, you only have to press the  (ON/OFF) button next time.

■ Dehumidifying Function

- When the room temperature is higher than the temperature setting: The device will dehumidify the room, reducing the room temperature to the preset level.
When the room temperature is lower than the temperature setting: Dehumidifying will be performed at the temperature setting slightly lower than the current room temperature, regardless of the temperature setting.
- The preset room temperature may not be reached depending on the number of people present in the room or other room conditions.

COOLING OPERATION

Use the device for cooling when the outdoor temperature is -10 to 46°C.
If humidity is very high (over 80%) indoors, some dew may form on the air outlet grille of the indoor unit.

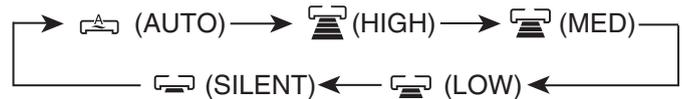


1

Press the MODE selector button so that the display indicates  (COOL).

2

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



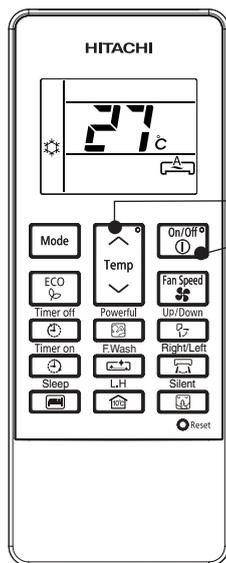
3

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.
Temperature range can be set between 16°C and 32°C.

START
STOP

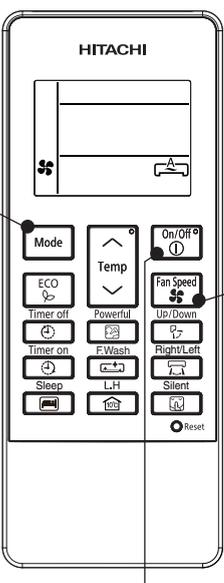
Press the  (ON/OFF) button. Cooling operation starts with a beep. Press the button again to stop operation. The cooling function does not start if the temperature setting is higher than the current room temperature (even though the  (OPERATION) lamp lights). The cooling function will start as soon as you set the temperature below the current room temperature.

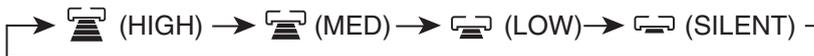
- As the settings are stored in memory in the remote controller, you only have to press the  (ON/OFF) button next time.
- During AUTO fan, the fan speed automatically changes as below:
 - When the difference between room temperature and setting temperature is large, fan starts to run at HI speed.
 - After room temperature reaches the preset temperature, fan speed will be changed to lower speed to obtain optimum room temperature condition for natural healthy cooling.



FAN OPERATION

User can use the device simply as an air circulator.



- 1 Press the MODE selector button so that the display indicates  (FAN).
- 2 Press the  (FAN SPEED) button.

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

TIMER RESERVATION

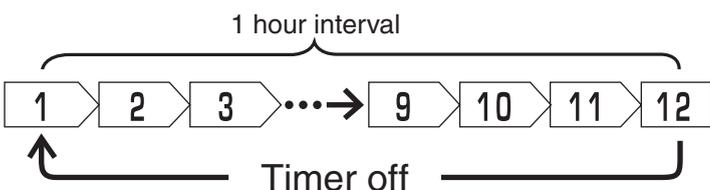
■ ON Timer and OFF Timer are available.

Timer Reservation

1  **OFF TIME setting**

- Select the OFF TIME by pressing the  Button.
- Setting time will change according to the below sequence when you press the button.

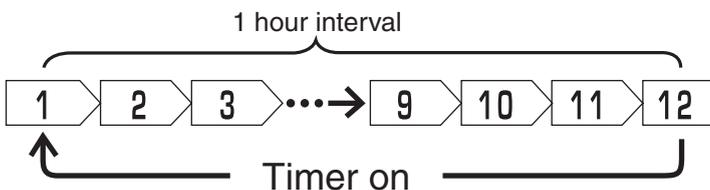
1 hour interval



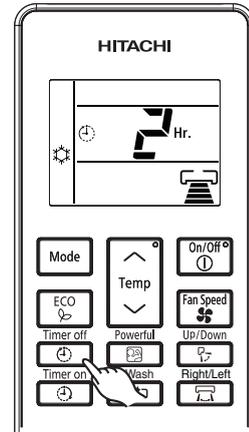
2  **ON TIME setting**

- Select the ON TIME by pressing the  Button.
- Setting time will change according to the below sequence when you press the button.

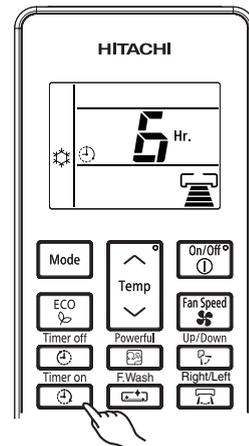
1 hour interval



■ Operation stop at setting time

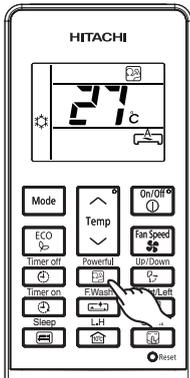


■ Operation will start for setting temperature at setting time.



POWERFUL OPERATION

- By pressing  (POWERFUL) button during HEATING, DEHUMIDIFYING, COOLING, FAN, AUTOMATIC operation, the air conditioner performs at maximum power.
- During POWERFUL operation, cooler or warmer air will be blown out from indoor unit for COOLING or HEATING operation respectively.



START

Press the  (POWERFUL) button during operation.

- "  " is displayed on the LCD.

POWERFUL operation ends in 20 minutes. Then the system automatically operates with the previous settings used before POWERFUL operation.

CANCEL

- Press the  (ON/OFF) button. or

Press the  (POWERFUL) button again.

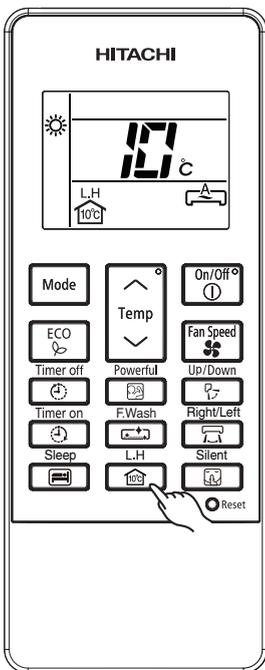
- "  " disappears from the LCD.

NOTE

- When ECO mode, or LEAVE HOME mode is selected, POWERFUL operation is cancelled.
- During POWERFUL operation, capacity of the air conditioner will not increase
 - if the air conditioner is already running at maximum capacity.
 - just before defrost operation (when the air conditioner is running in HEATING operation).
- After auto restart, POWERFUL operation is cancelled and previous operation shall start.

LEAVE HOME(LH) OPERATION

- Prevent the room temperature from falling too much when no one is at home .The initial setting temperature is 10°C and the temperature range can be set between 10°C and 16°C.



START

- ① Press  (LEAVE HOME) button during stop or operation.
Room temperature is set at 10°C and heating operation starts.
- ② Set the desired room temperature with the TEMPERATURE buttons. Temperature range can be set between 10°C and 16°C.
 - "  ", "  ", "  ", "SET TEMPERATURE" is displayed on the LCD.

CANCEL

Press the  (STOP) button.

Change to other Operation Mode.

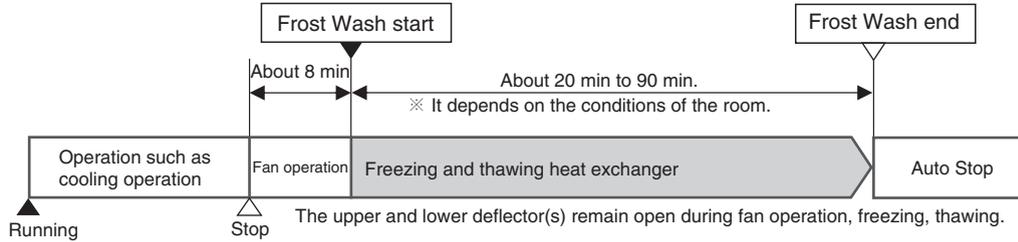
NOTE

- During Leave Home operation, fan speed and horizontal air deflector position cannot be changed.

FROST WASH OPERATION (For single model connection)

- The dust and dirt adhering to indoor heat exchanger which is the cause of the smell. They are washed away by freezing and thawing of the heat exchanger.
- Frost Wash function can work when the outdoor temperature is 1°C to 46°C and Indoor humidity is 30% to 70%.

The process of Frost Wash

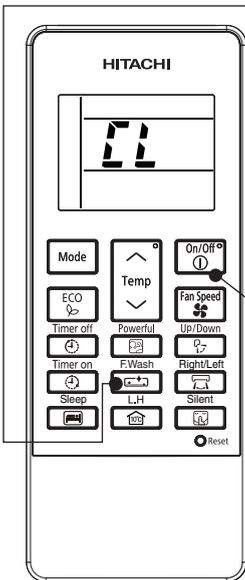


- "  " lamp on the indoor unit lights up during Frost Wash operation.
- When pressing the button such as cooling during Frost Wash operation, Frost Wash operation is discontinued and start the cooling operation after about 3 minutes.
- In order to protect the product, Frost Wash function cannot be carried out again for about 60 minutes after Frost Wash operation is completed.

■ Frost Wash (Manual mode)

When the unit is off, press  (F.Wash) button, manual Frost Wash will start.

■ How to start and cancel Frost Wash (Manual mode).



- Press  (F.Wash) button, "  " is displayed on the LCD. Frost Wash operation will start. "  " lamp on the indoor unit lights up.
 - After one hour, "  " disappears from the LCD. After about two hours, the indoor unit will stop Frost Wash operation.
 - In order to protect the product, Frost Wash function cannot be carried out again for about 60 minutes after the Frost Wash operation is completed.

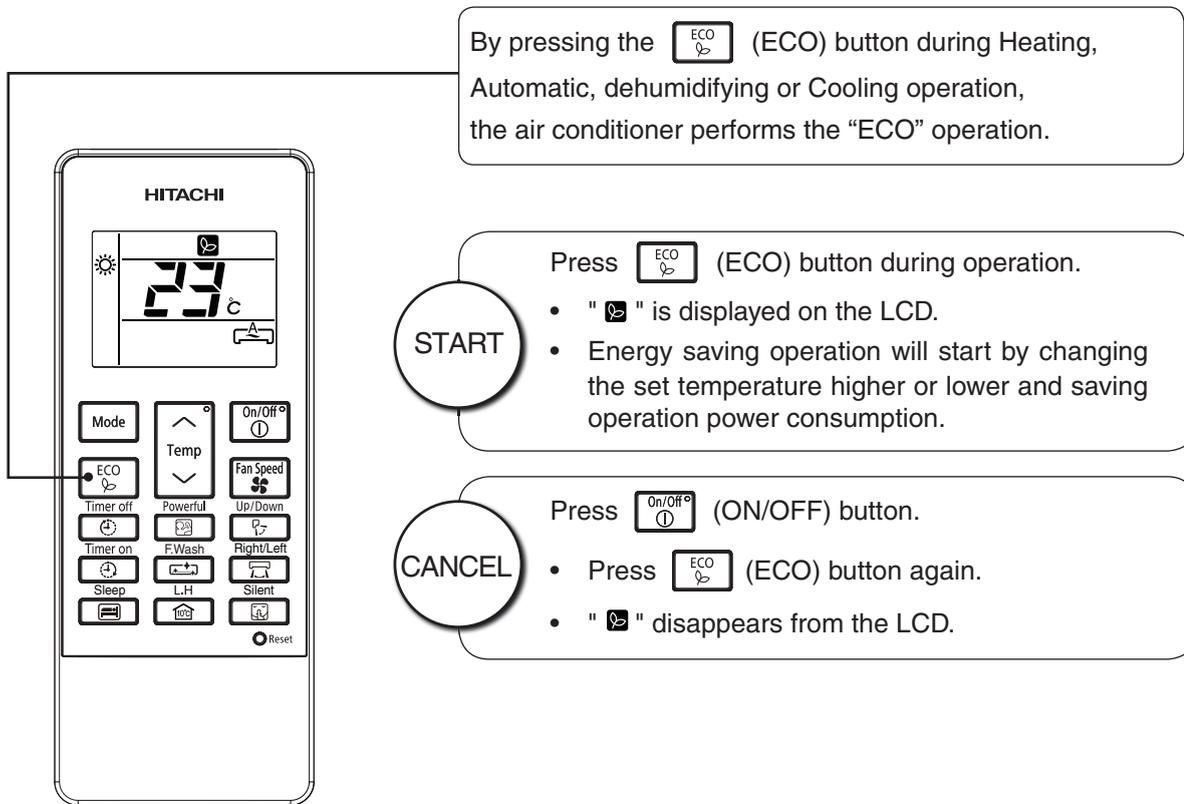
- Press the  (ON/OFF) button, the operation will stop. "  " lamp on the indoor unit turns off.

Precautions for Use

- Do not open windows or doors during frost wash operation. Water will condense on the air deflector and drips down occasionally. This will wet your furniture.
- Do not open or remove the front panel during Frost Wash operation. It may cause injury or malfunction.
- Frost Wash operation does not wash away all dust and dirt.
- Hissing, fizzy or squeaking noise may generate during Frost Wash operation.
- If the air conditioner is continuously running, Frost Wash function is not effective.
- During Frost Wash operation, if power is turned off and then power is restored, Frost Wash function will not restart.
- After turning on the power, please wait a moment if you want to start Frost Wash.

ECO OPERATION

- Energy saving operation by changing set temperature and by limiting the maximum power consumption value.



NOTE

- In case the power consumption is already low, ECO operation will not reduce the power consumption.
- By pressing (POWERFUL) button, ECO operation is cancelled.
- After auto restart, ECO operation is cancelled and previous operation mode shall start.

Sleep

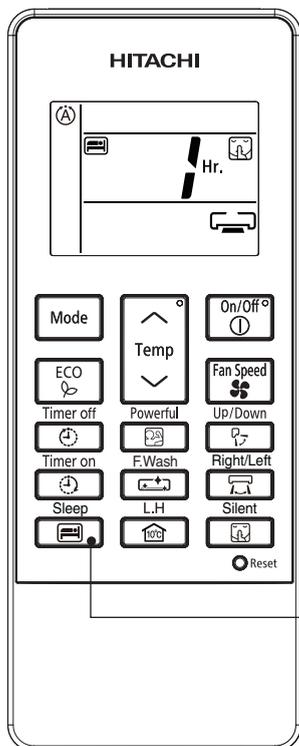


SLEEP TIMER OPERATION

The timer can be set up to a duration of 7 hours.

By pressing  (SLEEP) button during AUTO, HEATING, DEHUMIDIFYING, COOLING or FAN operation, the unit shifts the room temperature and reduces the fan speed. It results in energy saving.

■ To start SLEEP TIMER operation



Press  (SLEEP) button during operation.

- “”, “”, “” and number of hour are displayed on the remote controller display.
- During SLEEP TIMER operation, fan speed will be ultra slow.
- A beep sound emitted from indoor unit and the (TIMER) lamp on the indoor unit lights up.

Pressing  (SLEEP) button repeatedly, the number of hours will change as below:



- During SLEEP TIMER operation, air conditioner will continue to operate for the designated number of hours and then turn off.
- When the SLEEP TIMER has been set, the display on the remote controller indicates the turn off time.

■ To cancel SLEEP TIMER operation

Press  (START/STOP) button.

- Room air conditioner will switch off.

Press  (SLEEP) button again until “”, “”, “” and number of hour disappear from the remote controller display.

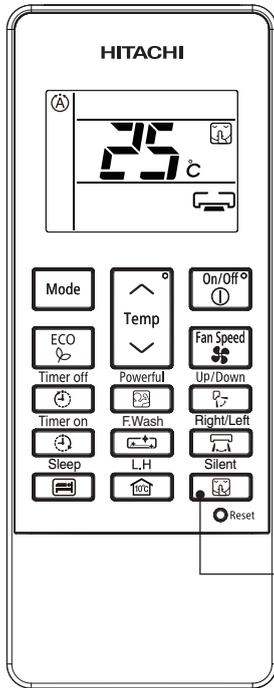
- A beep sound emitted from indoor unit and the (TIMER) lamp on the indoor unit turns off.
- SLEEP TIMER operation is cancelled.

NOTE

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

SILENT OPERATION

- By pressing  (Silent) button during AUTO, HEATING, DEHUMIDIFYING, COOLING or FAN operation, the fan speed will change to ultra slow.



■ To start SILENT operation

1

- Press  (Silent) button during operation.
“” is displayed on the LCD. Fan speed will be ultra slow.

■ To cancel SILENT operation

- Press  (START/STOP) button. Or
- Press  (Silent) button again or  (FAN SPEED) button.
Fan speed will return to previous fan speed before SILENT operation starts.
SILENT operation stops.
“” disappears from the LCD.

NOTE

- When POWERFUL operation is selected, SILENT operation is cancelled. Fan speed will return to previous fan speed before SILENT operation.
- After auto restart, SILENT operation is cancelled. Fan speed will return to previous fan speed before SILENT operation.
- During any operation with fan speed  (SILENT), if press  (Silent) button, fan speed will not change.

RECOMMENDED OPERATING RANGE

Operation mode	Cooling / Dehumidifying	Heating
Indoor temperature	21 to 32°C	20 to 27°C
Outdoor temperature	-10 to 46°C	-15 to 24°C

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 swung up and down continuously and also set to the desired angle using the

“ (AUTO SWING(HORIZONTAL))” button.

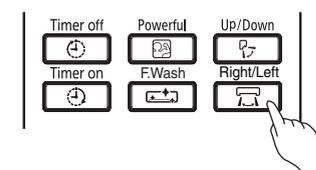
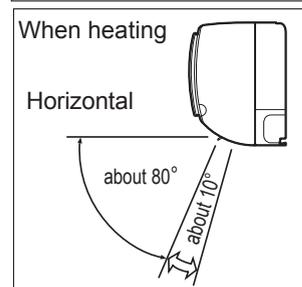
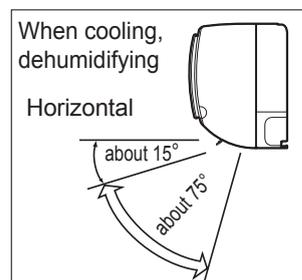
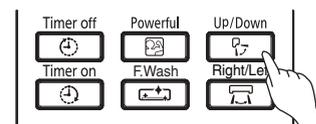
- If the “ (AUTO SWING(HORIZONTAL))” button is pressed once, the horizontal air deflector swings up and down. If the button is pressed again, the deflector stops in its current position. Several seconds (about 6 seconds) may be required before the deflector starts to move.
- Use the horizontal air deflector 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 outlet 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.

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

- If the “ (AUTO SWING(VERTICAL))” button is pressed once, the deflectors will start to swing right and left. If the button is pressed again, the deflector will stop in the current position. Several seconds (about 6 seconds) may be required before the deflector starts to move.



HOW TO EXCHANGE THE BATTERIES IN THE REMOTE CONTROLLER

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

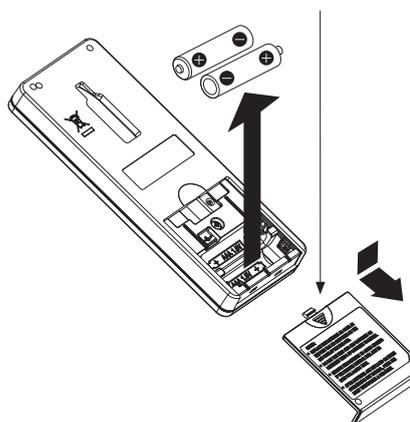


- 2** Install the new batteries.
The direction of the batteries should match the marks in the case.

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.

Push and pull to the direction of arrow



CLEANING

⚠ CAUTION

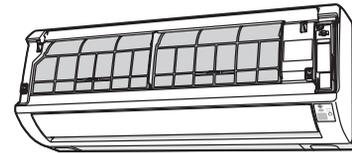
- Ensure unit and power supply is switched off before cleaning.
- Avoid touching any metal parts directly and do not use wet hands.
- Cleaning shall be carried out by competent person and able to follow below instruction.

1. AIR FILTER

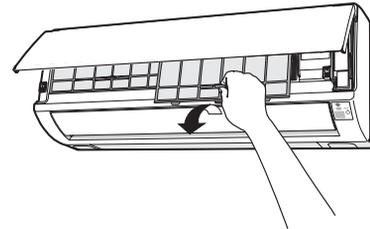
Clean the AIR FILTER, as it removes dust inside the room. In case the AIR FILTER is full of dust, the air flow will decrease and the cooling capacity will be reduced. Further, noise may occur. Be sure to clean the AIR FILTER following the procedure below.

PROCEDURE

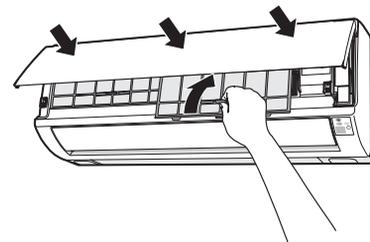
- ① Open the front panel carefully and remove the filter.



- ② Vacuum dust from the air filter using vacuum cleaner. If there is too much dust, wash the filter with a 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.



NOTE:

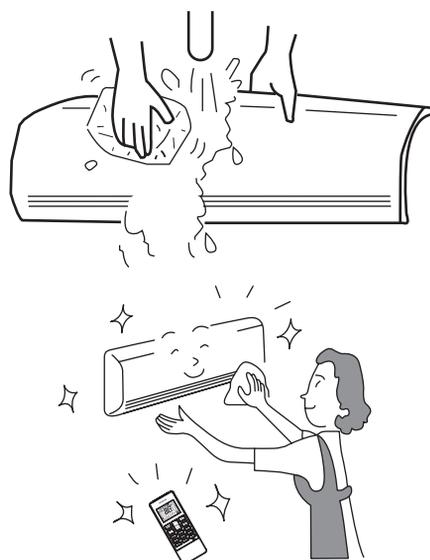
Air purifying filter to be inspected at least once a month or sooner depending on the usage of the air conditioner. If noticeable loading occurs on the unit, please clean it to avoid deterioration of its deodorizing function. For better performance, it is advisable to replace it every 1 year (subject to usage and application requirements).

⚠ 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.

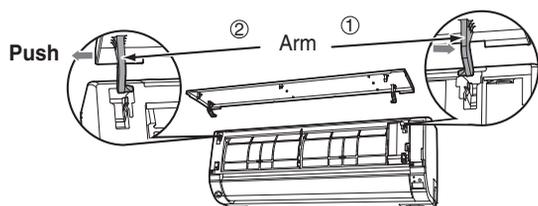
2. CLEANING OF FRONT PANEL

- Remove the front panel and wash with clean water. Wash it with a soft sponge. After using neutral detergent, wash thoroughly with clean water.
- When front panel is 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.



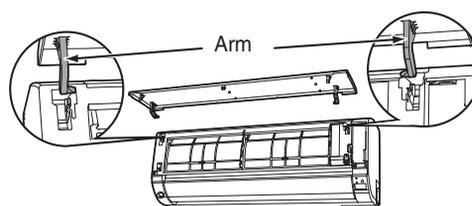
Method of removing the front panel.
Be sure to hold the front panel with both hands to detach and attach it.

Removing the Front Panel



1. Push the end of the right-side arm outward to release the tab.
2. Move the left-side arm outward to release the left tab, and then pull the panel towards you.

Attaching the Front Panel



1. Insert the shaft of the left arm along the step on the unit into the hole.
2. Securely insert the shaft of the right arm along the step on the unit into the hole.
3. Make sure that the front panel is securely attached, and then close the front panel.

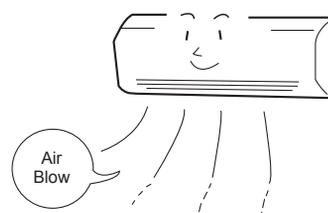
⚠ CAUTION

- 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.



INFORMATION

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.

REFRIGERANT INFORMATION

- **For the refrigerant charge information, please refer to the outdoor unit installation manual or specification label.**

REGULAR INSPECTION

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

1		<p>⚠ WARNING</p>	<p>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.</p>
2		<p>⚠ WARNING</p>	<p>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.</p>
3		<p>⚠ WARNING</p>	<p>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 or becomes hot, an electric shock or fire may result. If dust or dirt is found on the power plug, clean the plug and insert it into the wall socket.</p>

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.</p> <p>(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"?

FROST WASH OPERATION

<p>Frost wash operation does not start</p>	<p>It does not wash when outside temperature is less than about 1 degrees Celsius or more than 46 degrees Celsius.</p> <p>It does not wash when the humidity in the room is about 30% or less or about 70% or more.</p> <p>When "FROST WASH" is done by operating a remote controller, it does not wash when the room temperature is less than about 10 degrees Celsius or more than about 32 degrees Celsius.</p>
	<p>Within 60 minutes after the end of "FROST WASH", "FROST WASH" is not operated for product protection.</p>
<p>Noise occurred during frost wash operation</p>	<p>It is the sound that the internal machine is inflated and contracted by the temperature change and the fin of the heat exchanger is frozen and thawed</p>
<p> (FROST WASH) indicator blinks</p>	<p>Repeat for 1 second on and 1 second off for 10 seconds</p> <p>Because "FROST WASH" can not work when operating the "FROST WASH" with remote controller.</p> <ul style="list-style-type: none"> The air conditioner is operating Outside air temperature, room temperature and room humidity are not suitable for "FROST WASH" It has not been over 60 minutes since the end of "FROST WASH"
	<p>Repeat for 4 seconds on and 1 second off for 15 seconds</p> <p>Because it is not "FROST WASH" for a long time.</p> <p>→ Operate the remote controller to operate "FROST WASH".</p>

THE FOLLOWING CASES DOES NOT INDICATE MALFUNCTION

During heating, the operation indicator blinks and air blow stops	<Operation start> The unit is preparing to blow warm air. Please wait. <In operation> The outdoor unit is defrosting. Please wait.
 (FROST WASH), indicators lit after the operations	Indicates frost wash operation is underway.
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 outdoor 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.

- If the unit still fails to operate normally after performing the above inspections, turn the circuit breaker off, or pull the power plug out, 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 on the indoor unit display 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.

