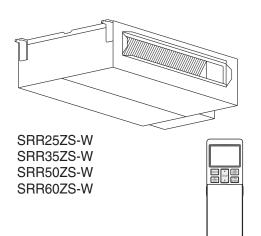


**ORIGINAL INSTRUCTIONS** 

# **USER'S MANUAL AIR-CONDITIONER**

### USER'S MANUAL ENGLISH

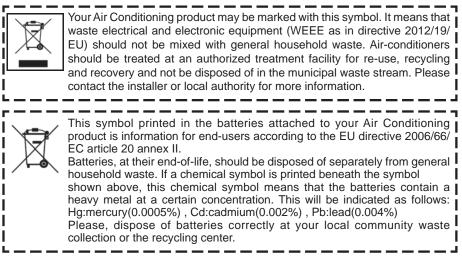
AIR-CONDITIONER



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RJJ012A005B 201908

Thank you for purchasing a MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD. Air-Conditioner. To get the best long-lasting performance, please read and follow this User's Manual carefully before using your air-conditioner. After reading, please store the Manual in a safe place and refer to it for operational questions or in the event of any irregularities.



The emission sound pressure level from each Indoor and Outdoor unit is under 70 dB(A).

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### ENGLISH

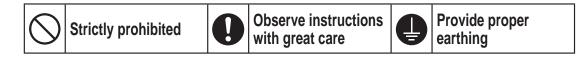
# **Safety precautions**

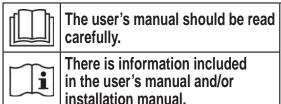
- Before starting to use the system, please read these "Safety precautions" carefully to ensure proper operation of the system.
- When you have read this user's manual, please keep it safely. If someone else takes over as user, make sure that the manual is also passed on to the new user.

Indicates a potentially hazardous situation which, if not avoided, can result in serious consequences such as death or severe injury.
Indicates a potentially hazardous situation which, if not avoided, can result in personal injury or property damage.

Please observe these precautions with great care, since they are essential to your safety.

- This unit is designed for 2 types refrigerants (R32 or R410A). See a label on the outdoor unit to check refrigerant information.
- Symbols which appear frequently in the text have the following meaning:







A service personnel should be handing this equipment with reference to the installation manual.

### Following precaution is only for R32.



This equipment uses flammable refrigerants. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.

### 

- Strict compliance of the domestic laws must be observed when disposing the appliance.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.

- The appliance shall be stored in a wellventilated area where the room size corresponds to the room area as specified for operation.
- The staff in servicing operations must hold the national qualification or other relevant qualifications.
- The indoor unit shall be stored in a room that has a minimum area of 4.0m<sup>2</sup>.\*
- \*This value is for split system. In the case of multi system, see the installation sheet of outdoor unit.

### **INSTALLATION PRECAUTIONS**

$\bigcirc$	• The system is for domestic and residential use. If used in severe environments, such as an engineering workplace, the equipment may function poorly.				
0	• The system must be installed by your dealer or a qualified installer. It is not advisable to install the system by yourself, as faulty handling may cause leakage of water, electric shock or fire.				
$\bigcirc$	• Do not install it where flammable gas may leak.     Gas leaks may cause fire.				
0	<ul> <li>Make sure that an earth leakage breaker is installed.</li> <li>If you do not install an earth leakage breaker, you may get an electric shock.</li> <li>Make sure to install the drain hose properly so that all the water is drained out.</li> <li>Improper installation may lead to water drop in the room resulting in wet furniture.</li> </ul>				
Ð	• Make sure that the system has been properly earthed. Earth wire should never be connected to a gas pipe, water pipe, lightning conductor or telephone earth wire. Improper installation of the earth wire may cause an electric shock.				
<ul> <li>This Product contains fluorinated greenhouse gases.</li> <li>Do not vent R32 into the atmosphere: R32 is a fluorinated greenhouse gas with a Global Warming Potential (GWP) = 675.</li> <li>Do not vent R410A into the atmosphere: R410A is a fluorinated greenhouse gas with a Global Warming Potential (GWP) = 2088.</li> <li>Refer to a label on outdoor unit for the weight of fluorinated greenhouse gas and CO<sub>2</sub> equivalent.</li> </ul>					

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### **IOPERATION PRECAUTIONS**

	<b>A WARNI</b>	NG
air for a long perio	urself to the cooling od. ur physical condition	<ul> <li>Cleaning and user maintenance shall not be made by children without supervision.</li> <li>Do not insert anything into the air outlet. This may cause injury, as the internal fan rotates at high speed.</li> </ul>
<ul> <li>and people with reserverience and known concerning use of involved.</li> <li>Store the remote concerning the second se</li></ul>	educed physical, sens lowledge, if they have the air-conditioner in control out of reach of	dren aged from 8 years and above ory or mental capabilities or lack of been given supervision or instruction a safe way and understand the hazards children. tteries being swallowed or other accidents.
		ON
<ul> <li>approved fuse is stimay cause a break</li> <li>Do not handle the hands. This may cause an</li> <li>Do not swing from If the indoor unit falinjured.</li> <li>Do not place a flar or paint spray near nor spray it direct. This may result in a</li> <li>Do not expose any appliance directly the air-conditioner. The combustion ap malfunction.</li> <li>Do not wash the a water. This could cause ar Using a high pressu</li> </ul>	ber wire instead of an rictly prohibited, as it down or fire. <b>switches with wet</b> electric shock. <b>a the indoor unit.</b> Is down,you may get <b>mmable insecticide</b> <b>r the air-conditioner,</b> Is down,you may get <b>mmable insecticide</b> <b>r the air-conditioner,</b> <b>to the air stream of</b> <b>r.</b> pliance may <b>ir-conditioner with</b> <b>n</b> electric shock. ure washer may cause ninum fins, resulting in	<ul> <li>Do not use for preservation of food, plants or animals, precision devices or works of art. The system is only intended for use in ordinary domestic rooms. Any other use of the system may damage the quality of food, etc. </li> <li>Do not place anything containing water, like vases, on top of the unit. Water entering the unit could damage the insulation and therefore cause an electric shock. </li> <li>Do not install the air-conditioner where the airflow direction is aimed directly at plants or animals. This will damage their health. </li> <li>Do not step/sit on the unit nor put anything on it. If the unit falls down or things drop from it, people could get hurt. </li> <li>After a long period of use, check the unit's support structure regularly. If you do not repair any damage right away, the unit may fall down and cause personal injury.</li></ul>

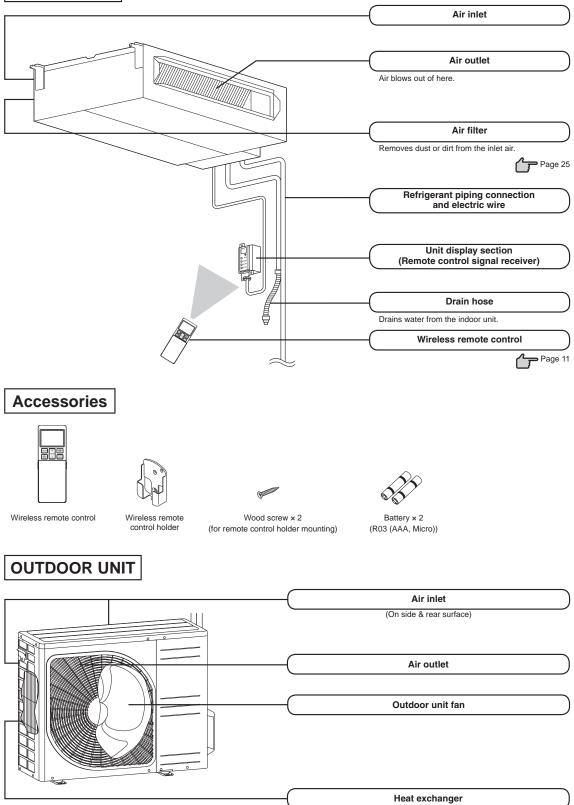
$\bigcirc$	<ul> <li>Do not touch the aluminum fins on the heat exchanger. It may result in injury.</li> <li>Do not place household electrical appliances or household items underneath the indoor or outdoor units. Condensation falling from the unit may stain objects and cause accidents or electrical shock.</li> <li>Do not operate the system without the air filter. It can cause malfunction of the system due to clogging of the heat exchanger and to locking of drain pump.</li> </ul>	<ul> <li>Do not shut off the power source immediately after stopping the operation.</li> <li>Wait at least 5 minutes, otherwise there is a risk of water leakage or breakdown.</li> <li>Do not control the system with main power switch.</li> <li>It can cause fire or water leakage. In addition, the fan can start unexpectedly, which can cause personal injury.</li> <li>Do not pour liquid into the unit and do not put water container on the unit. Water entering the unit could damage the insulation and therefore cause an electric shock.</li> </ul>				
	<ul> <li>If you operate air-conditioner together with a combustion appliance, you must regularly ventilate the indoor air. Insufficient ventilation may cause accidents due to oxygen deficiency.</li> <li>When you clean air-conditioner, stop the unit and turn off the power source. Never open the panel while the internal fan is rotating.</li> <li>Do not place objects near the outdoor unit or allow leaves to gather around the unit. If there are objects or leaves around the outdoor unit, small animals may enter unit and contact electrical parts and may cause a break-down, smoke or fire.</li> </ul>	<ul> <li>Contact your dealer to clean inside the indoor unit, do not attempt to do by yourself.</li> <li>The use of a non-approved detergent or improper washing method may damage the unit's plastic components and cause leaks. Damage, smoke, or fire may also happen if the detergent comes in contact with electrical parts or the unit's motor.</li> <li>Stop the unit and turn off the power if you hear thunder or there is a danger of lightning.</li> <li>It may damage the unit.</li> <li>If the power cable becomes damaged, contact your dealer or a qualified installer.</li> <li>If it is not replaced, it may cause a breakdown or fire.</li> </ul>				

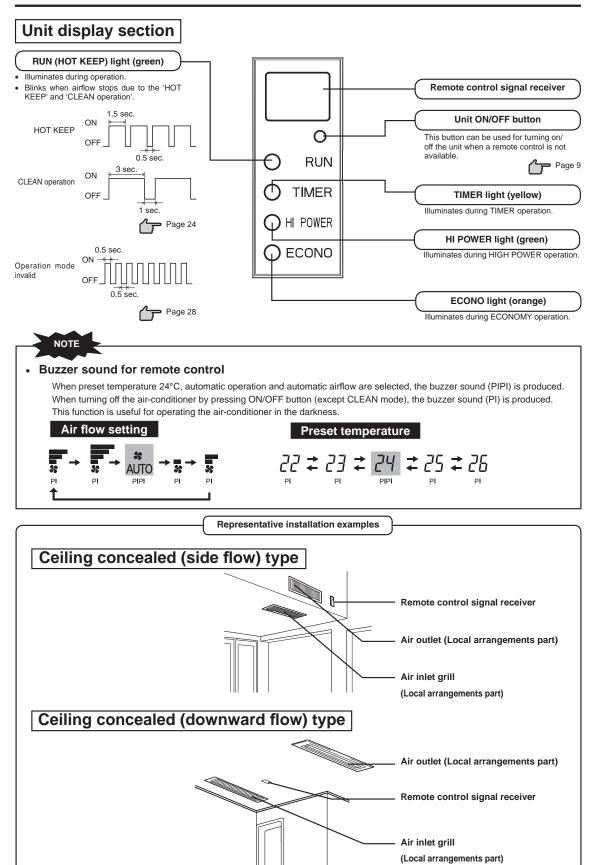
### **■PRECAUTIONS FOR RELOCATION OR REPAIRS**

$\bigcirc$	• Do not perform any repairs or modification the unit requires repair. If you repair or modify the unit, it can cause					
	<ul> <li>Consult your dealer for repairs. Wrong repairs could cause an electric shock, fire, etc.</li> <li>In case the air-conditioner is relocated elsewhere, contact your dealer or a qualified installer. Faulty installation may cause water leakage, electric shock, fire, etc.</li> <li>If you notice anything abnormal (smell of burning, etc.), stop the system, turn off the power source and consult your dealer. Continued use of the system in abnormal circumstances can result in malfunctioning, electric shock, fire, etc.</li> </ul>	<ul> <li>If the air-conditioner fails to cool or warm the room, it may have a refrigerant leakage. Contact your dealer.</li> <li>If refrigerant needs to be added, check with your dealer for proper instructions.</li> <li>If the refrigerant comes in contact with the bare skin, it may cause cold injury.</li> <li>If the refrigerant gas is inhaled excessively, it may cause deterioration of nerve function like dizziness and headache, or deterioration of heart function like irregular heartbeat and heart palpitation temporarily. If refrigerant unexpectedly leaks from the unit onto a fan heater, stove, hotplate or other heat source, harmful gases could be generated.</li> </ul>				

# Name of each part and its function

### **INDOOR UNIT**



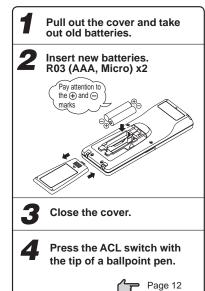


## Remote control handling

### Replacing the batteries

The following cases show exhausted batteries. Replace old batteries with new ones.

- Receiving beep is not emitted when a signal is transmitted.
- Display fades away.



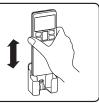


- Do not use old and new batteries together.
- Remove the batteries when the remote control is not used for a long period. The recommended effective period of a battery conforming to JIS or IEC should be 6 to 12 months with normal use. If used longer, or when an unspecified battery is used, liquid may leak from the battery, causing the remote control to malfunction.
- The recommendable effective period is printed on the battery. This may be shorter due to manufacturering time to the unit. However, the battery may still be in working order after expiry of its nominal life.
- When the display shows any abnormal condition, Press the ACL switch with the tip of a ballpoint pen.

### Using the remote control holder

The remote control can be attached to a wall or pillar by using a remote control holder. Before installing the remote control, check that the air-conditioner receives the signals properly.

For installing or removing the remote control, move it up or down in the holder.



### Warning note for remote control handling

	Strictly prohibited	
<ul> <li>Do not go near high temperature places, such as an electric carpet or a stove.</li> </ul>	<ul> <li>Do not leave the remote control exposed to direct sunlight or other strong lighting.</li> </ul>	• Do not drop the remote control. Handle with care.
<ul> <li>Do not put any obstructing obstacles between the remote control and the unit display section.</li> </ul>	Do not spill any liquid on the remote control.	Do not place heavy objects on the remote control, or step on it.

## **Operation failure with the remote control**

Are the batteries running down?

"Replacing the batteries" above.

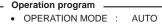
with temporary operation function. Contact your dealer to have the remote control checked. Replace the batteries with new ones and retry the operation.

If the operation fails, operate the unit

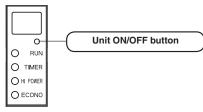


## Temporary run operation

The unit ON/OFF button on the unit display section operates ON/OFF temporarily when the remote control is not used.



- FAN SPEED AUTO
- Operation starts by pressing the unit ON/OFF button; it stops if you press the button again.



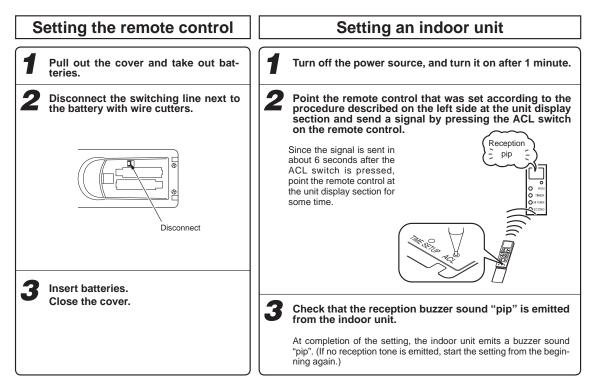
## NOTE

Do not hold the Unit ON/OFF button down for more than 5 seconds.

(Holding it down longer than 5 seconds sets the automatic cooling used during servicing or when relocating the air-conditioner.)

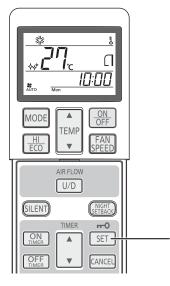
## Installing two air-conditioners in the same room

When two air-conditioners are installed in the same room, use this setting when the two air-conditioners are not operated with one remote control. Set the remote control and indoor unit.



# Child Lock

■ This function locks the remote control operation to prevent an operation error.





#### Press the SET button for 3 seconds or longer.

 ${f J}$  is displayed. While Child Lock is set, only the ON/OFF button can be operated.

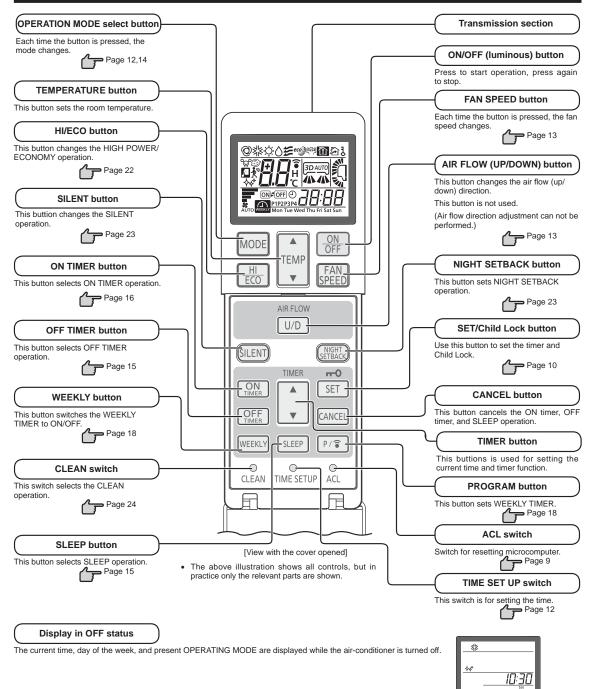
#### - Releasing procedure -

Turn off the light **3** by pressing the SET button for 3 seconds or longer.



While Child Lock is set, the settings of temperature and fan speed cannot be changed. To change the settings, reset Child Lock.

## **Operation and display section for remote control**



### Transmission procedure

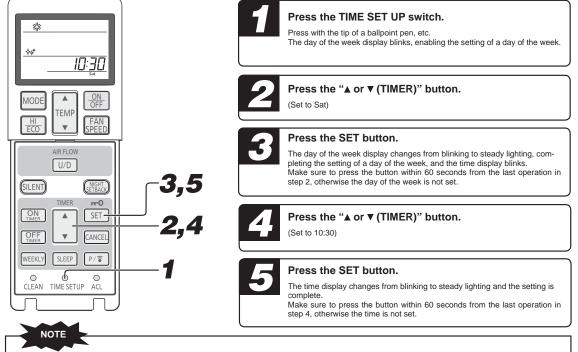
When each button on the remote control is pressed with the remote control pointing towards the unit display section, a signal is transmitted.

When the air-conditioner receives the signal correctly, it will beep.



# **Current time setting**

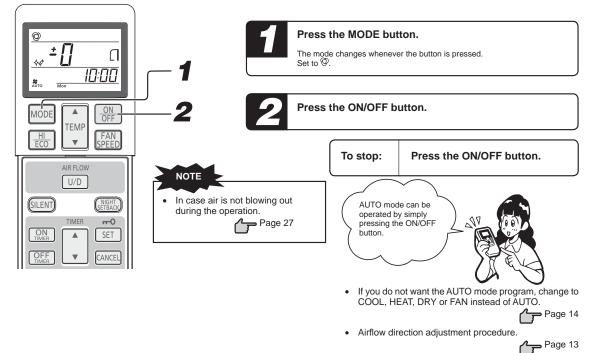
When inserting the batteries, the current time is automatically set to time setting mode. Mon and 13:00 are displayed as the current time. Set a correct day of the week and a time.
Example: Set to Sat 10:30.



- The timer operation works based on the time clock, so please set it correctly.
- The remote control data is reset when the present time is set.
- When the battery of the remote control is replaced or the ACL switch is pressed, the remote control is set to the initial state. Since the WEEKLY TIMER program is not set in the initial state, set the program according to the setting procedure.

# AUTO mode operation

Automatically selects the operation mode (COOL, HEAT, DRY) depending on the room temperature when switched on.



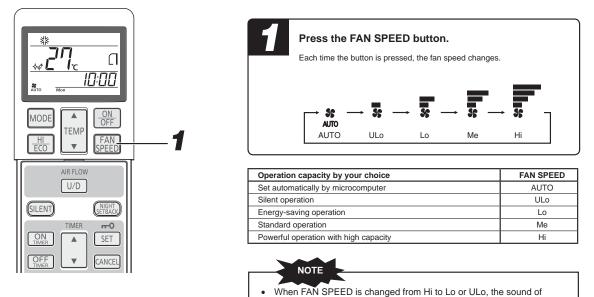
# **Temperature adjustment during AUTO**

■ Air temperature adjustment is possible even during automatic operation. There are 6 levels of adjustment possible with the ▲ button or the ▼ button.During automatic operation, 24°C is preset both for heating and cooling.

<u>©</u>	Press the"▲ or ▼ (TEMP)" button.
	When it is a little cold
AUTO Mon	Press the  button.
	Each time the $\blacktriangle$ button is pressed, the switch over occurs in the following order $-6 \rightarrow -5 \rightarrow \dots -1 \rightarrow \pm 0 \rightarrow \pm 1 \dots \pm 6$ . When $\pm 6$ is indicated, even if the $\blacktriangle$ button is pressed, the indicator does not change.
AIR FLOW	When it is a little hot Press the ▼ button.
	Each time the ▼ button is pressed, the switch over occurs in the following order +6 → +5 →+1 → ±0 → −16. When -6 is indicated, even if the ▼ button is pressed, the indicator does not change.
	Remote Control display
	Setting         -6         -5         -4         -3         -2         -1         ±0         +1         +2         +3         +4         +5         +6           temp.(°C)         18         19         20         21         22         23         24         25         26         27         28         29         30
OFF CANCEL	

## **FAN SPEED**

You can choose the fan speed of your air-conditioner without dry mode.



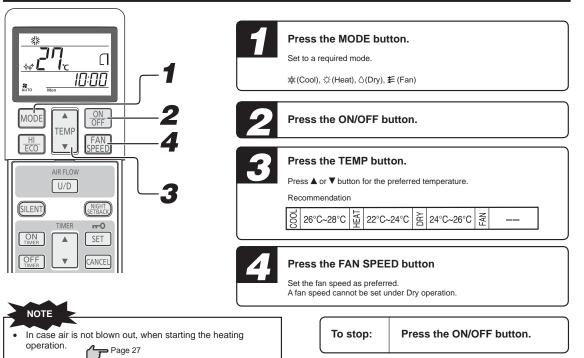
### refrigerant flowing may be heard.

## **Airflow direction adjustment**

Adjusting up/down air flow direction

Air flow direction adjustment can not be performed, although a display will be changed if "AIR FLOW" button is pushed.

# **COOL/HEAT/DRY/FAN** mode operation



- Air-conditioner operable temperature setting
- Use within the following operational range. Operating outside of this range may result in the protection devices being activated, preventing the unit from working.

	Cooling operation	Heating operation
Outside temperature	Approximately -15 to 46 °C	Approximately -15 to 24 °C
Inside temperature	Approximately 18 to 32 °C	Approximately 10 to 30 °C
Inside humidity	Below approximately 80% The long-term use of the unit with a humidity level exceeding 80% may result in condensation forming on the surface of the indoor unit, leading to water drops.	

## **Characteristics of HEAT mode operation**

### Mechanism and capacity of HEAT mode operation

#### Mechanism

- The unit draws heat from the cold outside air, transfers it to indoors and heats the room. As a characteristic of heat pump system, the heating capacity reduces when the outside air temperature gets colder.
- It may take some time to supply hot air after turning on the air-conditioner.

The operation mode can also be set or changed when the

air-conditioner is not in operation.

If the outside temperature becomes extremely low, it would be better to use an additional source of heating.

### Defrosting

If the outside temperature becomes low and humidity is high, the heat exchanger in the outdoor unit may frost over, which prevents efficient heating.

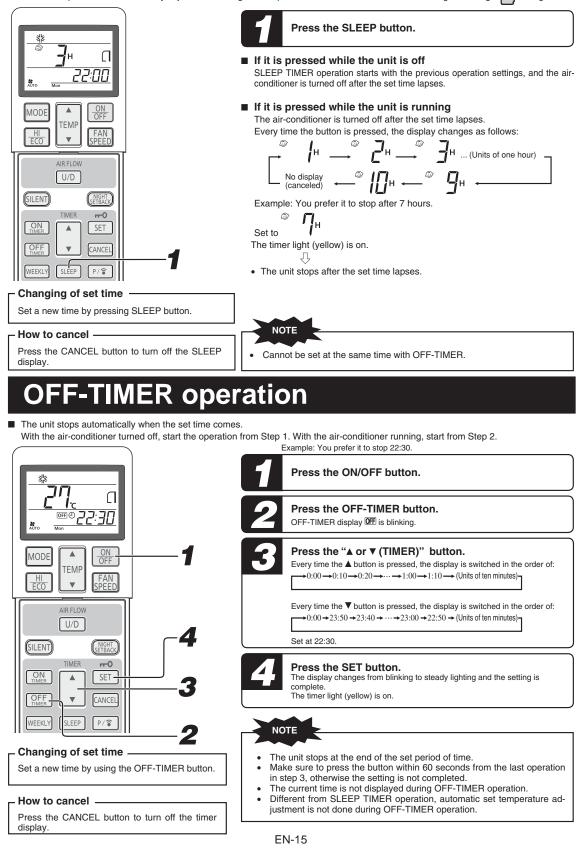
### If this happens, the automatic defrost function is activated and during defrosting the heating operation stops for 5 to 15 minutes during defrosting.

- Both indoor and outdoor fans stop and the RUN light blinks slowly (1.5 sec. ON, 0.5 sec. OFF) during defrosting.
- The outdoor unit may give off some steam during defrosting. This is to help the defrosting process and is not a defect.
- The HEAT operation resumes as soon as defrosting has been completed.

# **SLEEP TIMER operation**

The unit will stop automatically after the set time lapses.

The set temperature is automatically adjusted according to the lapse time in order to avoid too much cooling or heating.



# **ON-TIMER** operation

Page 17 Operation starts 5 to 60 minutes before the set time so that the room temperature reaches the optimum temperature at the set time. ON-TIMER operation can be set regardless of whether the air-conditioner is running or not.

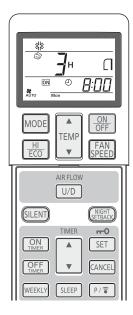
Example: When the preferred room temperature is required at 8:00 Press the ON-TIMER button. ON-TIMER display ON is blinking. Ω A:NN Press the "▲ or ▼ (TIMER)" button. Every time the **A** button is pressed, the display is switched in the order of: >0:00 →0:10 →0:20 →··· →1:00 →1:10 → (Units of ten minutes)-FAN SPEE Every time the V button is pressed, the display is switched in the order of: →0:00 →23:50 →23:40 → ··· →23:00 →22:50 → (Units of ten minutes)-Set at 8:00 SETBAC Press the SET button. --0 The display changes from blinking to steady lighting and the setting is SET. complete The timer light (yellow) is on. The operation stops if it is set during operation. CANCEL P/ 宿 NOTE Changing of set time Operation starts 5 to 60 minutes before the set time. Set a new time by using the ON-TIMER button. The timer light (yellow) goes out at the set time. •

- Make sure to press the button within 60 seconds from the last operation in step 2, otherwise the setting is not completed.
  - The current time is not displayed during ON-TIMER operation.
  - If the ON/OFF button is pressed after setting the ON-TIMER, the setting will be canceled.

### **EEP TIMER + ON-TIMER operation** SI

Combined timer operation of SLEEP TIMER and ON-TIMER.

Press the CANCEL button to turn off the timer



٢

TEMP

T

AIR FLOW

U/D

TIMER

▼.

SLEEP

How to cancel -

\*

MODE

HI ECO

SILENT

ON

OFF

WEEKLY

display.

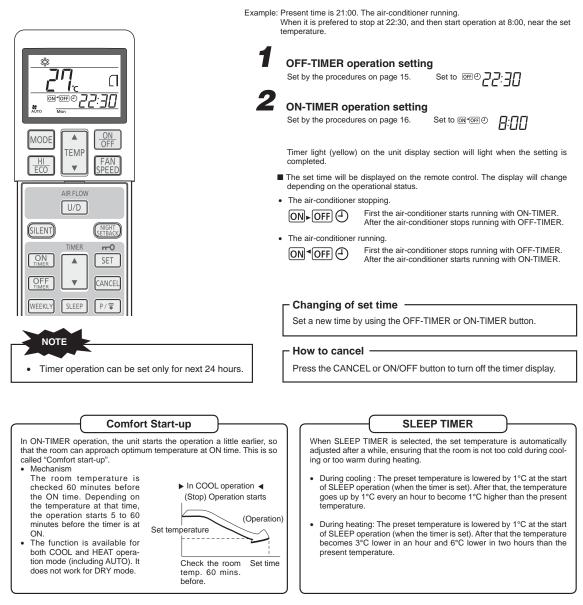
Example: When it is required to stop after 3 hours and then start operation at 8:00, near the set temperature.

SLE	EEP TIMER setting
Set I Set 1	by the procedures on page 15.
<b>2</b> ON	-TIMER operation setting
Set I	by the above procedure mentioned in ON-TIMER. , <sup>©</sup> 用:∏∏
The	setting of the lighting of the timer light (yellow) of this unit is complete.
	SLEEP TIMER set time has elapsed, the operation stops, and it starts from nutes before the ON-TIMER's set time.
The timer	light is turned off when ON-TIMER set time comes.
Changing	of set time
Set a new tir	ne by using the SLEEP or ON-TIMER button.
How to ca	ancel

Press the CANCEL button to turn off the timer display.

# **ON-TIMER + OFF-TIMER operation**

#### ■ The timer operations of the combination of ON and OFF-TIMER.



# **WEEKLY TIMER operation**

Up to 4 programs with timer operation (ON-TIMER / OFF-TIMER) are available for each day of the week. Max 28 programs per week are available. Once this has been set, the timer operation will be repeated at the same programs every week unless the WEEKLY TIMER is canceled.

Samp	le (At cooling	i season)					: WEEKLY TIMER setting
							: MANUAL setting
	6:00	8:00 10	:00 12	:00 14	:00 16	:00 18:00	20:00 22:00
Mon	Program 1 ON 6:00 COOL 2 Fan:AL					Program 3 ON 17:00 COOL 28°C Fan: Lo	Program 4 OFF 22:00
Tue	Program 1 ON 5:30 COOL 27°C Fan:AUTO	Change sett AUTO 27 Fan: Me			26°C	Program 3 ON 17:00 COOL 28°C Fan: Lo	Program 4 OFF 22:00
Wed ~ Fri		ON OFF 1 COOL 28°C Fan: ULo	0:00 ON	Y 25°C	Program 2 OFF 14:00	Program 3 ON 18:00 COOL 2 Fan: UL	
Sat		Program 1 ON 7:30 Chang COOL 26°C Fan:Hi	ge setting ¦COOL 25°C ¦Fan : Hi	Program 2,3 No setting	}	Change setting COOL 28°C Fan: ULo	Program 4 OFF 22:00
Sun		Program 2 ON 7:00 COOL 28°C Fan : Hi	Off	Program 1 ON 12:00 COOL 26°C Fan:Hi			

### WEEKLY TIMER ON/OFF setting

Switch the WEEKLY TIMER to ON/OFF by using the WEEKLY button.



### Press the WEEKLY button.

The WEEKLY TIMER becomes effective.

Every time the WEEKLY button is pressed, the display is switched in the order of:

No display –––––
KLY TIMER off)

When the WEEKLY TIMER is set to ON, the timer light (yellow) of the unit display section is on.

When the battery of the remote control is replaced or the ACL switch is pressed, the remote control is set to the initial state. Since the WEEKLY TIMER program is not set in the initial state, set the program according to the setting procedure.

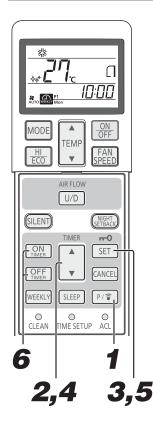
NOTE

- The WEEKLY TIMER is switched to ON/OFF regardless of whether the air-conditioner is running or not.
- The ON-TIMER operation of the WEEKLY TIMER is effective regardless of whether the air-conditioner is running or not. When the ON-TIMER setting time is reached, the remote control operates according to the contents that are set. The remote control display is also switched to the operation contents that are set. The setting can be changed from the remote control after ON-TIMER operation of the WEEKLY TIMER.
  - The following contents can be set by the ON-TIMER.

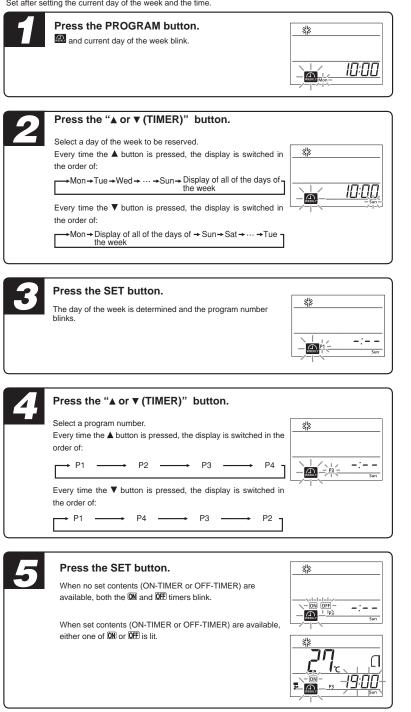
Operation mode, fan speed, temperature, ECONOMY, NIGHT SETBACK, SILENT.

Comfort start-up is not performed for WEEKLY TIMER ON-TIMER operation.

- OFF-TIMER operation of the WEEKLY TIMER is effective only when the air-conditioner is running. When the time set by the OFF-TIMER is reached, the air-conditioner stops.
- When multiple program numbers are set for the current day (day of the week), the operation is performed from the earliest time that is set.
- When various timers (ON-TIMER, OFF-TIMER, and SLEEP TIMER) are operating, the WEEKLY TIMER does not operate even if the time set in the ON-TIMER or OFF-TIMER is reached. The WEEKLY TIMER becomes effective after various timers are terminated.
- The ON-TIMER or OFF-TIMER of the same time in the same day of the week cannot be set.



Set after setting the current day of the week and the time.

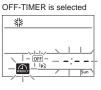


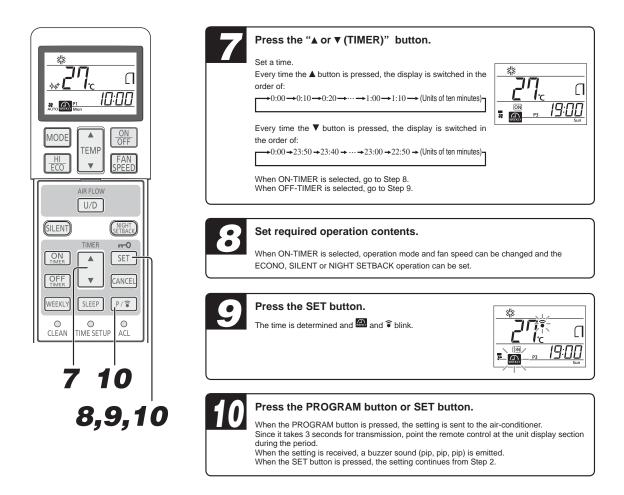
#### Press the ON-TIMER or OFF-TIMER button.

ON-TIMER or OFF-TIMER is determined and time display blinks.

ON-TIMER is selected







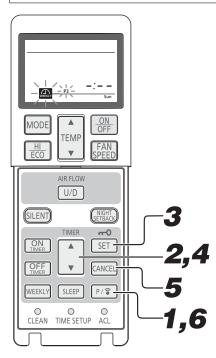
#### Setting mode <Collective setting>

Set the same operation contents to the same program number of all the days of the week. In Step 2 above, select "all of the days of the week". When the contents that were individually set exist in the same program number, the contents are overwritten.



- If no operation is performed for 60 seconds in setting mode, the setting changes that have been made until then become invalid and the setting mode terminates. Subsequently, and all the program numbers (P1, P2, P3 and P4) blink for 10 seconds. (This blinking can not be observed if setting mode gets terminated while setting only one program.)
- At the end of the setting mode, point the remote control at the unit display section and press the PROGRAM button. In this case, check that the air-conditioner emits a reception buzzer sound three times (pip, pip, pip). If the buzzer sound is not emitted, set the mode to the setting mode again by pressing the PROGRAM button and check that the buzzer sound is emitted.

#### How to cancel the setting <Individual setting>



Press the PROGRAM button.

and current day of the week blink.



#### Press the "▲ or ▼ (TIMER)" button.

Select a day of the week to be canceled.



#### Press the SET button.

The day of the week is determined and the program number blinks.



#### Press the "▲ or ▼ (TIMER)" button.

Select a program number to be canceled.

At cancelation operation, do not press the SET button. If the SET button is pressed, the mode is shifted to the Set mode.



#### Press the CANCEL button.

The setting contents of the ON or OFF-TIMER are canceled and - - - is displayed on the time display section.



#### Press the PROGRAM button.

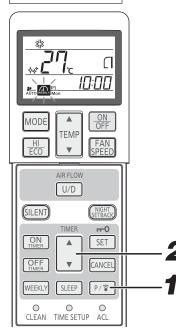
When the PROGRAM button is pressed, the setting is sent to the air-conditioner.

When the setting is received, a buzzer sound (pip, pip, pip) is emitted. The setting contents of each program are canceled. Perform the operation indicated above for each program to be canceled.

#### How to cancel the setting <Collective setting>

When the same operation contents exist in the same program number of all the days of the week, collective erase is allowed. In Step 2 above, select "all of the days of the week". The procedure from Step 3 is the same as that indicated above. If the operation contents have been changed or erased by individual setting after the collective setting described in page 20, causing setting content discrepancies among the days of the week, collective erase is not allowed.

#### Confirm mode



The WEEKLY TIMER setting contents can be confirmed.



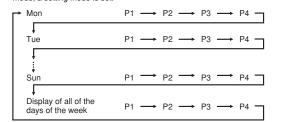
Press the PROGRAM button for 3 seconds or more.

blinks and the setting content lights.



#### Press the "▲ or ▼ (TIMER)" button.

Select a day of the week and a program number to be confirmed. Display starts from the current day of the week. For the program without setting, - - is displayed. When the PROGRAM button is pressed in Confirm mode, a setting mode is set.



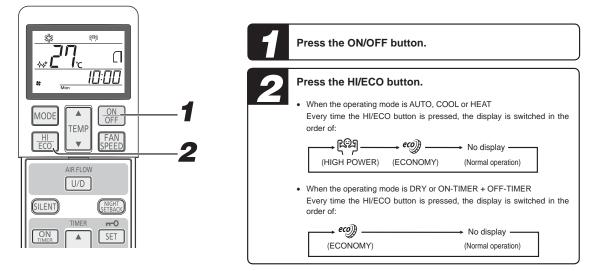
#### Releasing procedure \_

The Confirm mode can be terminated by pressing the ON/OFF, CANCEL or SET button.



 If no operation is performed for 60 seconds in Confirm mode, the Confirm mode is terminated.

# **HIGH POWER/ECONOMY operation**



#### HIGH POWER operation

Pressing the HI/ECO button intensifies the operating power and initiates powerful cooling or heating operation for 15 minutes continuously. The remote control [29] displays and the FAN SPEED display disappears.



- During the HIGH POWER operation, the room temperature is not controlled. When it causes an excessive cooling or heating, press the HI/ECO button again to cancel the HIGH POWER operation.
- HIGH POWER operation is not available during the DRY and ON-TIMER + OFF-TIMER operations.
- When HIGH POWER operation is set after setting ON-TIM-ER operation, HIGH POWER operation will start from the set time.
- After HIGH POWER operation, the sound of refrigerant flowing may be heard.
- When the following operations are set, HIGH POWER operation will be canceled.
  - ① When the HI/ECO button is pressed again.
  - (The operation mode will be changed to the ECONOMY operation.)
  - (2) When the operation mode is changed.
  - When it has been 15 min. since HIGH POWER operation has started.
  - ④ When the SILENT button is pressed.
  - ⑤ When the NIGHT SETBACK button is pressed.
- Not operable while the air-conditioner is OFF.

#### ECONOMY operation

Pressing the HI/ECO button initiates a soft operation with the power suppressed in order to avoid an excessive cooling or heating. The unit operates 1.5°C higher than the setting temperature during cooling or 2.5°C lower than that during heating. The remote control comparison with the FAN SPEED display disappears.

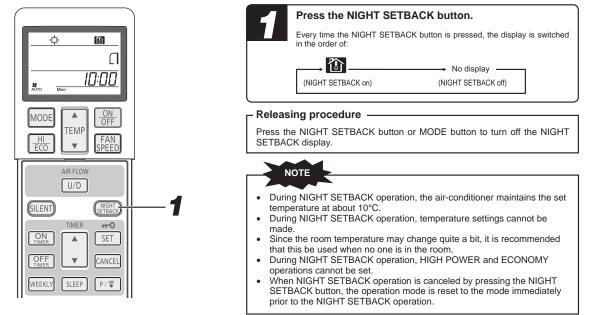


- It will go into ECONOMY operation at the next time the airconditioner runs in the following case.
  - (1) When the air-conditioner is stopped by ON/OFF button during ECONOMY operation.
  - When the air-conditioner is stopped in SLEEP or OFF TIMER operation during ECONOMY operation.
     When the operation is retrieved from CLEAN operation.
- When the following operations are set, ECONOMY operation will be canceled.
  - ① When the HI/ECO button is pressed again.
  - When the operation mode is changed from DRY to FAN.
     When the NIGHT SETBACK button is pressed.
- Not operable while the air-conditioner is OFF.

EN-22

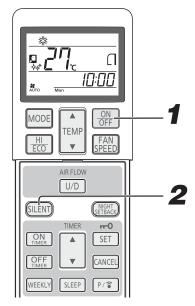
# **NIGHT SETBACK operation**

During the cold season, the room temperature can be maintained at a comfortable level during the absence, at night, and while the room is unattended. The air-conditioner maintains the constant temperature at about 10°C.



## **SILENT** operation

When the SILENT operation is set, the unit operates more silently reducing noise from the outdoor unit. With the air-conditioner turned off, start the operation from Step 1. With the air-conditioner running, start from Step 2.

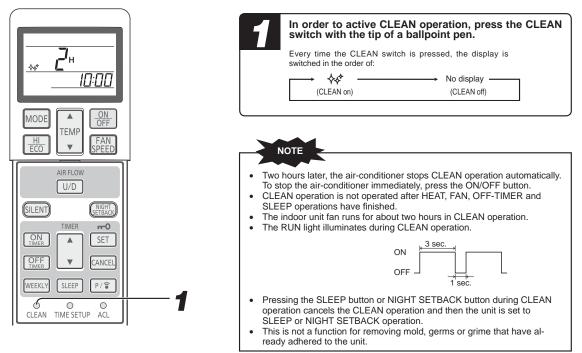


<ul> <li>Press the ON/OFF button.</li> <li>Press the SILENT button.</li> <li>When the operating mode is AUTO, COOL, HEAT or NIGHT SETBACK Every time the SILENT button is pressed, the display is switched in the order of:</li> <li> (SILENT on) (SILENT off) </li> </ul> Releasing procedure Press the SILENT button to turn off the SILENT display. NOTE Ouring SILENT operation, the maximum cooling and heating capacities deteriorate. SILENT operation will not function during DRY and FAN operation. In case of following operations, the air-conditioner will resume SILENT operation whenever it turns ON again. When the air-conditioner is stopped by ON/OFF button during SILENT operation. When the air-conditioner is stopped in SLEEP or OFF-TIMER operation during SILENT operation. When the operation is retrieved from CLEAN operation. Not operable while the air-conditioner is OFF. The noise level of the outdoor unit may not decrease depending on th condition. In case of SCM multi system, SILENT control function is invalid.		
<ul> <li>When the operating mode is AUTO, COOL, HEAT or NIGHT SETBACK Every time the SILENT button is pressed, the display is switched in the order of:</li> <li> (SILENT on) (SILENT off) </li> <li> Releasing procedure Press the SILENT button to turn off the SILENT display. </li> <li> <b>Note</b> Interpret of the state of the outdoor unit may not decrease depending on th condition. </li> </ul>	5	Press the ON/OFF button.
Every time the SILENT button is pressed, the display is switched in the order of:	2	Press the SILENT button.
(SILENT on) (SILENT off)  Releasing procedure  Press the SILENT button to turn off the SILENT display.  During SILENT operation, the maximum cooling and heating capacities deteriorate.  SILENT operation will not function during DRY and FAN operation. In case of following operations, the air-conditioner will resume SILENT operation whenever it turns ON again. When the air-conditioner is stopped by ON/OFF button during SILENT operation. When the air-conditioner is stopped in SLEEP or OFF-TIMER operation during SILENT operation. When the operation is retrieved from CLEAN operation. Not operable while the air-conditioner is OFF. The noise level of the outdoor unit may not decrease depending on th condition.		Every time the SILENT button is pressed, the display is switched in the
<ul> <li>Press the SILENT button to turn off the SILENT display.</li> <li>Press the SILENT operation, the maximum cooling and heating capacities deteriorate.</li> <li>SILENT operation will not function during DRY and FAN operation.</li> <li>In case of following operations, the air-conditioner will resume SILENT operation whenever it turns ON again.</li> <li>When the air-conditioner is stopped by ON/OFF button during SILENT operation.</li> <li>When the air-conditioner is stopped in SLEEP or OFF-TIMER operation during SILENT operation.</li> <li>When the operation is retrieved from CLEAN operation.</li> <li>Not operable while the air-conditioner is OFF.</li> <li>The noise level of the outdoor unit may not decrease depending on th condition.</li> </ul>		
<ul> <li>During SILENT operation, the maximum cooling and heating capacities deteriorate.</li> <li>SILENT operation will not function during DRY and FAN operation.</li> <li>In case of following operations, the air-conditioner will resume SILEN operation whenever it turns ON again.</li> <li>(1) When the air-conditioner is stopped by ON/OFF button during SILENT operation.</li> <li>(2) When the air-conditioner is stopped in SLEEP or OFF-TIMER operation.</li> <li>(3) When the operation is retrieved from CLEAN operation.</li> <li>(4) Not operable while the air-conditioner is OFF.</li> <li>(5) The noise level of the outdoor unit may not decrease depending on th condition.</li> </ul>		
<ul> <li>During SILENT operation, the maximum cooling and heating capacities deteriorate.</li> <li>SILENT operation will not function during DRY and FAN operation.</li> <li>In case of following operations, the air-conditioner will resume SILEN operation whenever it turns ON again.</li> <li>(1) When the air-conditioner is stopped by ON/OFF button during SILENT operation.</li> <li>(2) When the air-conditioner is stopped in SLEEP or OFF-TIMER operation.</li> <li>(3) When the operation is retrieved from CLEAN operation.</li> <li>(4) Not operable while the air-conditioner is OFF.</li> <li>(5) The noise level of the outdoor unit may not decrease depending on th condition.</li> </ul>		OTE
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# **SELF CLEAN operation**

CLEAN operation should be run after AUTO, COOL and DRY operation to remove the moisture from inside the indoor unit and control the growth of mold and bacteria.



### Auto restart function

#### What is auto restart function?

- Auto restart function records the operational status of the air-conditioner immediately prior to be switched off by a power cut, and then
  automatically resumes operations after the power has been restored.
- The following settings will be canceled:
- Timer settings
- 2 HIGH POWER operations



- Auto restart function is set at on when the air-conditioner is shipped from the factory. Consult with your dealer if this function needs to be switched off.
- · When power failure occurs, the timer setting is canceled. Once power is resumed, set the timer again.

## Tips for effective operation

Please observe the following for the most economic and comfortable use of your unit.

Set a suitable room temperature.	Clean the filters frequently.	Avoid direct sunlight and draught.
Excessively high or low temperatures are not good for your health and waste of electricity.	Clogged filters may block the airflow and cause less efficient operation. Please request cleaning of the air filter from special contractor.	Cut out direct sunlight by drawing the curtains or blinds when cooling. Keep windows and doors shut, except when ventilating.
According to handling directions of local arrangements part, adjust the airflow direction properly.	Operate the unit only when needed. Use the timer properly to operate the unit only when needed.	Keep heat source away when cooling. Keep heat sources out of the room as much as possible.
Adjust the up/down and left/right airflow to ensure a steady room temperature. Air flow direction adjustment can not be performed by unit.		

## Maintenance

### **Before maintenance**

#### Turn off the power source.



#### Do not spill any liquid.



 There's a danger of electric shock.

• Wipe the unit with a soft, dry cloth.

Do not touch the aluminum fins on the heat exchanger.

#### Do not use the following articles:

- Hot water (40°C or more) It may deform or discolour the unit.
- Petrol, paint thinner, benzine or cleanser, etc.
   They may deform or scratch the unit.

### During the operational season

#### - Cleaning the air filter -

Please request cleaning of the air filter from special contractor.



1

3

- The air filter that comes with the unit cannot be washed with water.
- Cooling/heating is affected by an air filter clogged up with dust etc., and the operation noise becomes louder. It may also use
  extra electricity. Please clean the air filter at appropriate intervals.

### At the end of the season

Perform the fan operation for 2 to 3 hours.

Dry the inside of the unit.

### **2** Stop the unit and turn off the power source.

The unit consumes approx. 2W even when the unit is not operating. Turning off the power source will help saving energy consumption and cost.

#### Clean and reinstall the air filters.

 $^{\ast}\,$  The air filter that comes with the unit cannot be washed with water.

Remove batteries from the remote control.

A	At the beginning of the season		
1	Ensure that the earth wiring is not snapped nor disconnected.		
2	Check if there is no corrosion or rust on the base frame of the outdoor unit.		
3	Make sure that there are no obstacles blocking the airflow around the air intake and outlet openings of the indoor and outdoor units.		
4	Turn on the power source.		
5	Insert batteries in the remote control.		

# **Proper installation**

### Suitable installation position

- Do not put any obstruction in front of the indoor unit, preventing proper ventilation and functioning.
- Do not install the unit in any of the following places:
- Where there is a danger of leaking flammable gases.
  Where there is substantial splashing of oil.
- Where there is substantial splashing of oil.
- Malfunctioning due to corrosion may occur if the unit is installed in a spa where sulfide gases are generated, or in a seaside resort exposed to sea breezes. Contact your dealer.
- The air-conditioner and remote control must be at least 1 meter away from a TV set or radio.
- Drain the dehumidified liquid from the indoor unit into a spot that drains well.

### Pay attention to operating noises!

- When you install the unit, take care to choose a place that can comfortably stand the weight of the unit and does not increase the
  operating noise or vibration. If vibration is transmitted through the house, fix the unit with the aid of vibration-proof pads between the
  unit and the fittings.
- Select a place where cold or hot air, operation noises from the indoor and outdoor units do not cause any inconvenience to your neighbours.
- Do not leave any obstacles near the outlet and inlet of the outdoor unit. This may cause malfunctioning and increased operating noise.
- If you hear an irregular noise during operation, contact your dealer.

#### Inspection and maintenance

Depending on operating environment, the inside of the air-conditioner may become dirty after a few year operations. This will reduce performance. In addition to normal cleaning, we would recommend inspection and maintenance. (This may lead the air-conditioner to having a longer life without any trouble.)

- Contact your dealer, or any distributor, for inspection and maintenance. (There will be a charge for this service).
- We would recommend inspection and maintenance to be carried out during the off-season.
- If the supply cord of this appliance is damaged, it must only be replaced by a repair shop appointed by the manufacturer, because special purpose tools are required.

## Troubleshooting

Please carry out the following checks before making a service call.



If the air-conditioner does not operate properly after you have checked the left points, or if any doubt still exists after you have consulted page 27, or if things happen as shown on page 28, switch off the power and contact your dealer.



Poor cooling			
Is there any direct sunlight entering the room?	Is there a heat source in the room?	Are there too many people in the room?	

# Notice

### Air flow

Airflow is not blown out when starting the HEATING operation. RUN light blinks slowly (1.5 sec ON, 0.5 sec OFF)	Airflow has stopped to prevent blowing out of cold air until the indoor heat exchanger has warmed up. (2 to 5 min.) (HOT KEEP program)
Airflow is not blown out for 5 to 15 min. or blown out not warm wind for a moment at HEATING operation. RUN light blinks slowly (1.5 sec ON, 0.5 sec OFF)	When outdoor temperature is low and humidity is high, the unit sometimes performs defrosting automatically. Please wait. During defrosting, water or steam may escape from the outdoor unit.
Airflow is not blown out when starting the DRY operation. (RUN light is on)	The indoor fan may stop to prevent re-evaporation of dehumified moisture and to save energy.

### Noise

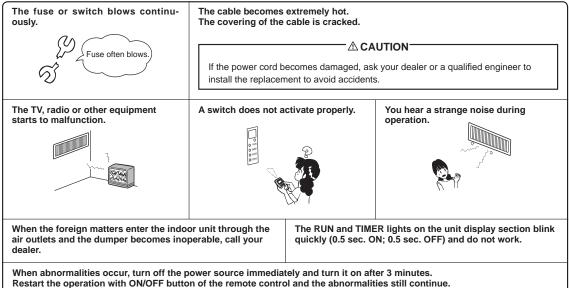
You hear a slight gurgling sound.	This is caused by refrigerating liquid moving within the unit.
You hear a slight cracking sound.	This is caused by heat expansion or contraction.
You hear a hissing or clicking sound.	This is caused by the operation of the refrigerant control valves or electric components.
Whistling noise is heard from the outdoor unit.	The noise means that the revolution speed of the compressor is increasing or decreasing.
Sometimes a "Shooooo" sound might come for a short time from the unit that is turned off.	This is the sound when operation of another indoor unit is stopped.

### Others

The unit does not restart immediately after you have stopped it. (RUN light is on)	Restart is blocked for 3 minutes after you have stopped the operation to protect the unit.	
Some steam escapes during COOL operation.	This may occur if the room's temperature and humidity are very high. It disappears as soon as the temperature and humidity decrease.	
There is a slight smell.	Air blown out during operation may smell. This is caused by tobacco or cosmetics adhering to the unit.	
After a power cut, the unit does not restart even if power has been restored.	If the auto restart function is not set, the unit will not restart automatically. Use the remote control to start the operation again.	
Remote control signals are not received.	Remote control signals may not be received if the unit display section is exposed to direct sunlight or other bright light. If so, cut out the sunlight or reduce the other light.	
Moisture may form on the air outlet grills.	If the unit is operated for a long time in high humidity, moisture may form on the air outlet grills and start dripping.	
Fan will not stop immediately after unit operation was stopped.	Indoor fan       : Fan will not stop after 2 hours if set to CLEAN operation.         Outdoor fan       : Fan will not stop about a 1 minute period in order to protect the unit.	
RUN light stays on even though operation was stopped.	The RUN light illuminates during CLEAN operation. Run light turns off when CLEAN operation ends.	

## **Contact your dealer**

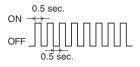
Turn off the power switch immediately and inform your dealer in any of the following situations:



## About the Multiple Air-conditioner

### Simultaneous operation

- The air-conditioners cannot be in different operating modes at the same time, such as one unit being in the "Cool" mode and one unit being in the "Heat" mode.
- When conducting different operations, the air-conditioner that was operated first will be given priority, so the air-conditioner that is
  operated after that will conduct air blowing operation.
- When you want to give priority to the air-conditioner that was started later, either stop the air-conditioner that has priority or cause the operation type of the unit operated first to match that of the unit operated second.
- · When other indoor units are operating in different modes, the RUN light illuminates.



### Automatic operation

- When the remote control operation switch is in the "AUTO" mode the air-conditioner automatically selects either "COOL," "DRY," or "HEAT" when operation is started depending on the room temperature.
- During simultaneous operation of air-conditioner units, operation modes may be automatically changed in response to the temperatures of the individual rooms; this will result in the operation of the outdoor unit being stopped. In such a case, COOL or HEAT mode should be used instead of AUTO. (This is only relevant when more than one air-conditioner unit is being used.)

### Refrigerant (oil) recovery operation

 If the all of the indoor units are not operated at the same time for an extended period, the cooling or heating performance may temporarily decrease. This is in order to control the recovery of the refrigerant (oil) in the stopped indoor unit(s). At this time, the sound of refrigerant flowing may be heard from the stopped indoor unit(s).

# Self diagnosis function

We are constantly trying to do better service to our customers by installing such judges that show abnormality of each function as follows:

	RUN light	Description of trouble	Cause
	1-time flash	- Heat exchanger sensor 1 error	Broken heat exchanger sensor 1 wire, poor connector connection
	2-time flash	- Room temperature sensor error	Broken room temperature sensor wire, poor connector connection
	3-time flash	Heat exchanger sensor 3 error	Broken heat exchanger sensor 3 wire, poor connector connection
TIMER light ON	4-time flash	- Drain error	Drain at reverse gradient     Float switch defective
	5-time flash	- Active filter voltage error	Defective outdoor unit boards
	6-time flash	- Indoor fan motor error	Defective fan motor, poor connector connection
	7-time flash	Refrigerant is insufficient Closed service valve Heat exchanger sensor 1 error	Refrigerant is insufficient, leaking     Closed serice valve     Broken heat exchanger sensor 1 wire, poor connector     connection
	TIMER light		
	U	Outdoor temperature sensor error	Broken outdoor sensor wire, poor connector connection
	2-time flash	Outdoor heat exchanger fluid pipe sensor error	<ul> <li>Broken heat exchanger fluid pipe sensor wire, poor connector connection</li> </ul>
RUN light keeps flashing	4-time flash	Discharge pipe sensor error	Broken discharge pipe sensor wire, poor connector connection
	5-time flash	Suction pipe sensor error	Broken suction pipe sensor wire, poor connector connection
	1-time flash	Current cut	Compressor locking, open phase on compressor output, shortcircuit on power transistor, closed service valve
	2-time flash	- Trouble of outdoor unit	Broken power transistor, broken compressor wire     Broken discharge pipe sensor wire, poor connector connection     Compressor blockage
	3-time flash	Over current	Overload operation, overcharge of refrigeration
[]	4-time flash	Power transistor error	Broken power transistor
RUN light ON	5-time flash	Over heat of compressor	Gas shortage, defective discharge pipe sensor, closed service valve
	6-time flash	Error of signal transmission	Defective power source, Broken signal wire, defective in/outdoor unit boards
	7-time flash	Outdoor fan motor error	Defective fan motor, poor connector connection
	Keep flashing	Cooling high pressure protection	Overcharge of refrigeration, short circuit of outdoor unit
RUN light 2-time flash	2-time flash	- Rotor lock	Defective compressor     Open phase on compressor     Defective outdoor unit boards
RUN light 7-time flash	1-time flash	Closed service valve	Closed serice valve



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