Foreword

Air conditioners are pieces of high value. In order to ensure your lawful rights and interests, please have the professional technicians to do the installation for you.

This Instruction Manual is the universal-purpose version for the models of separate wall-mounted air conditioners manufactured by our Co. The appearance of the units that you purchase might be slightly different from the ones described in the Manual, but it does not affect your proper operations and usage. Please read carefully the sections corresponding to the specific model you choose, and keep the Manual properly so as to facilitate your reference at later time.

Addition to the user manual:

The appliance is not intended for use by young children or infirm persons without supervision; Young children should be supervised to ensure that they do not play with the appliance.

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Instructions To Users

Please read the "Instruction Manual" carefully prior to the use of your air conditioner so as to ensure proper operations.

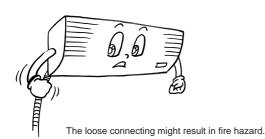
Instructions for Installation

- * Make sure to have the professional after-sale service persons of our company or the authorized dealers to install the units before you use.
 - 1. The units are not to be installed at places where there might be leakage of combustible gases.

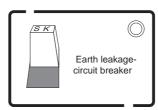


In case that the leaked gas accumulates around the units, there might occur the accident of fire hazards.

After the connecting of the wires between the indoor unit and the outdoor unit, check whether the connecting is loose or not by pulling the wire with a little force.

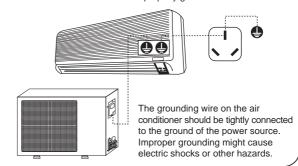


Make sure that the earth leakage-circuit breaker is installed.



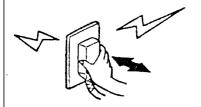
Absence of the earth leakage-circuit breaker might lead to electric shock and some other hazards.

Make sure that the air conditioner is properly grounded.



Instructions for Operation

Never try to stop the operation of the air conditioner by pulling out the power supply line.



Such performance might cause electric shocks or fire hazards.

Do not operate the switch by wet hands.



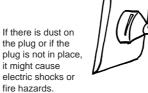
It might cause electric shocks.

Do not connect the power supply line to an intermediate connector. Use of prolonged power line is strictly forbidden. Nor is it allowed to share the same plug connector with other electric appliances.



It might cause electric shocks, overheating, fire hazards or other accidents.

Before the connector is plugged in, please make sure that there is no dust on it and that it is plugged fully in place

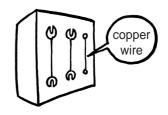


Do not press, stretch, damage, heat or modify the power line.



It might cause electric shocks, overheating, fire hazards, etc. If the power line wire is damaged or needs to be replaced due to some other reasons, please make sure to have dealer or the authorized maintenance people to do the replacement.

Never use the fuse with incorrect capacity or any other metal wires.



The use of metal or copper wires for fuse might cause operational failures or fire hazards.

Instructions To Users

Try to avoid the sunlight and hot air from entering the room



During the cooling operation, curtains or windowblinds should be used to shade off the sunlight.

Do not place insecticides or paints and other flammable sprays near the air conditioner, or spray them directly at the air conditioner.



It might cause fire hazards.

Try to minimize the generation of heat during the operation of cooling.



Place the heating sources out of the room.

When it is necessary to use the air conditioner and the combusting apparatuses in the same room, air ventilation has to be made from time to



lack of oxygen or some other dangers

Do not use combusting apparatuses in the air-conditioned room.



It might lead to the incomplete combustion of these apparatuses.

Prior to the maintenance of the air conditioner, please cut off the power supply first. Never do the cleaning of the units when the fan is in highspeed operations.



Do not insert sticks or bars into the air vents.



As the fan is in high-speed operation, the insertion might lead to accidents

Do not clean the air conditioner with water.



It might cause electric shocks

Do not sit on the outdoor unit or place any other objects on it.





Adjust the air direction correctly



Properly adjust the up/down and left/right directions of the air flow so as to get the even room temperature

Do not attach, hang or stack articles on the air conditioner



It might lead to the falling down of the air conditioner unit, which will result in accidents or injuries.

Do not use the following substances:



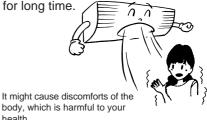
Hot water (over 40°C)

The use of hot water will deform the air conditioner or make it fade in color.

Gasoline, paint diluent, benzene and polishing agents, etc.

These substances will deform the air conditioner or cause scratches.

Do not keep exposed to the cool air for long time



health.

Check the supporting structures of the units carefully.



In case of damages, the supporting structures should be immediately repaired so as to avoid falling down of the unit, which might cause human injuries or

other accidents. Pull out the plug when the unit is not

in use for long time so as to ensure safety.

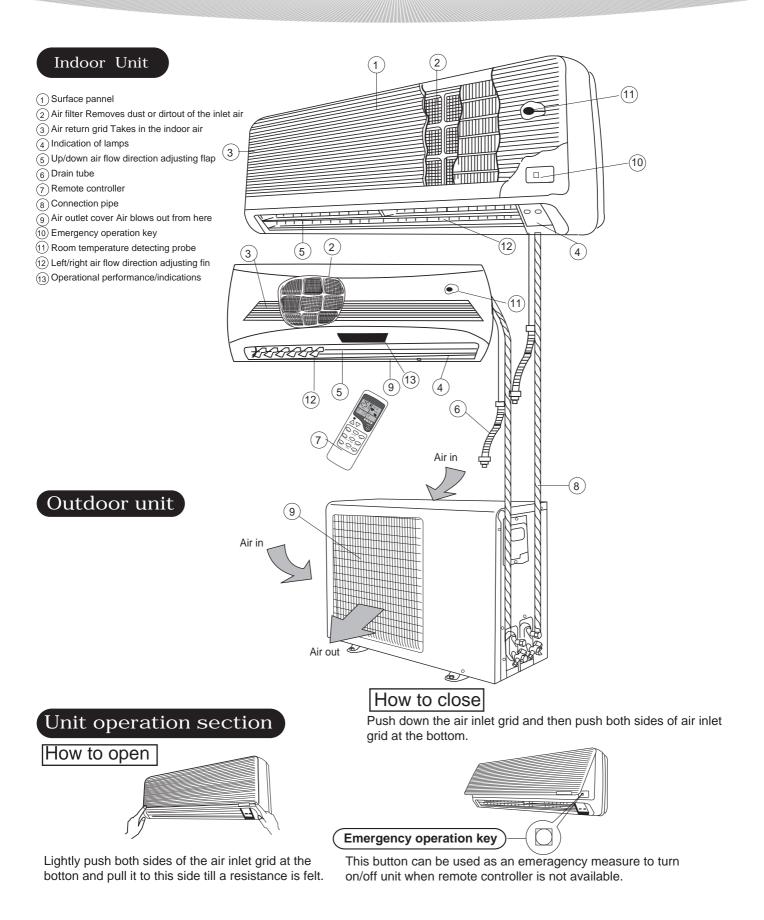


When the plug is to be pulled out, make sure that the switch of the air conditioner is turned off.

Instructions for Removal and Repair

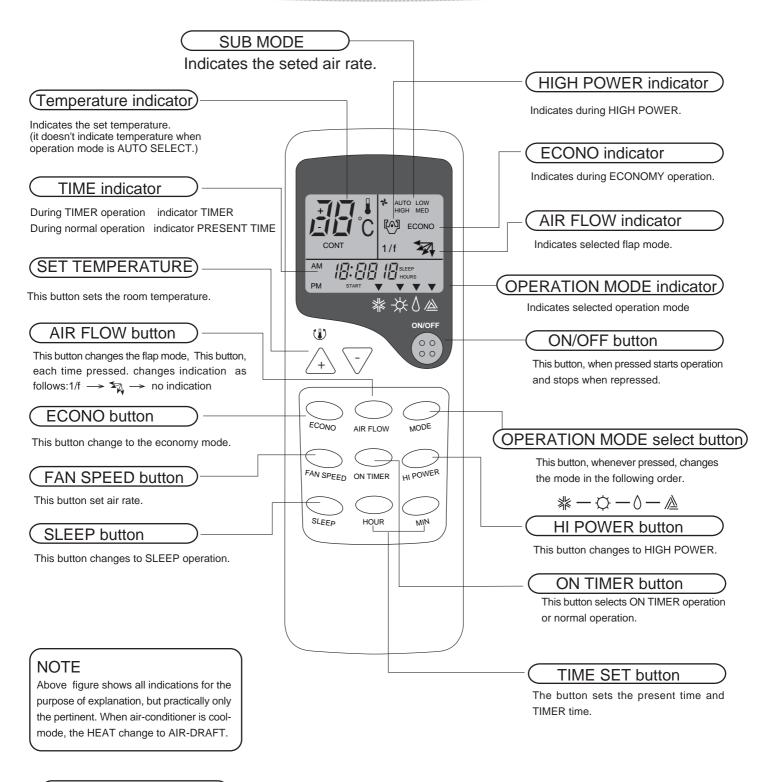
- * When removal or repair is needed, please contact the dealer or authorized maintenance & installation people.
- * In case of any abnormal occurrences (smell of burning), please stop the operation at once, cut off the power supply and contact the dealer or authorized maintenance people.

The name of each part and its function

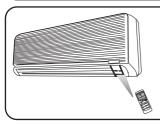


^{*} Note: Do not open the grid at an angle over 60 degrees. Do not operate the units with too much force.

Operation and indication sections of remote controller



Transmission procedure



When each button on the remote controller is pressed with the remote controller pointing toward the air conditioner unit, signal is sent.

When the signal is received correctly, the receiving sound is emitted from the unit.

Air flow direction adjustment procedure

Adjusting up/down air flow direction Up/down direction can be adjusted by using the AIR FLOW button on the remote controller. This button, each time pressed, changes the mode in the following sequence: ➤ NATURAL FLOW —➤ SWING → NO indication (flap stopped) Change to the AIR FLOW mode. **NATURAL FLOW** SWING FLAP In COOL, DRY and FAN operation In HEAT operation Stops at the level Sway operation Sway operation position for one The flap operation as The flap operation as Flap moves in upward and shown above will be shown above will be downward directions repeated. repeated. continuonsly.

MEMORY FLAP(FLAP STOPPED) When the flap is operating if the AIR FLOW button is pushed once, it stops swinging at an angle. As this angle is memorized in the microcomputer, the flap will be automatically set to the angle when next operation is stared. Recommendable stopping angle of the flap. (Horizontal blowing)

COOL, DRY

HEAT

(Slant forward blowing)

CAUTION

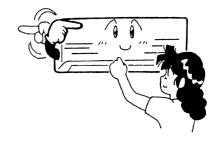
*Avoid direct air flow to the body for many hours .

CAUTION

- *Avoid downward blowing operation for many hours
- *Do not try to adjust the flaps by hand . Otherwise , the control angle may change or the flap may not close completely.

Adjusting left/right air flow direction

Adjust the direction by moving directly the left /right air flow direction adjusting fin by hand.



CAUTION .

When adjust the direction, stop air conditioner.

Emergency run operation

The ON/OFF button operations ON/OFF of the unit temporarily when remote controller is not used.

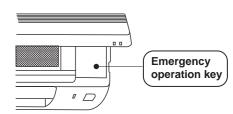
Operation content

*OPERATION MODE : AUTO SELECT

*SUB MODE : AUTO

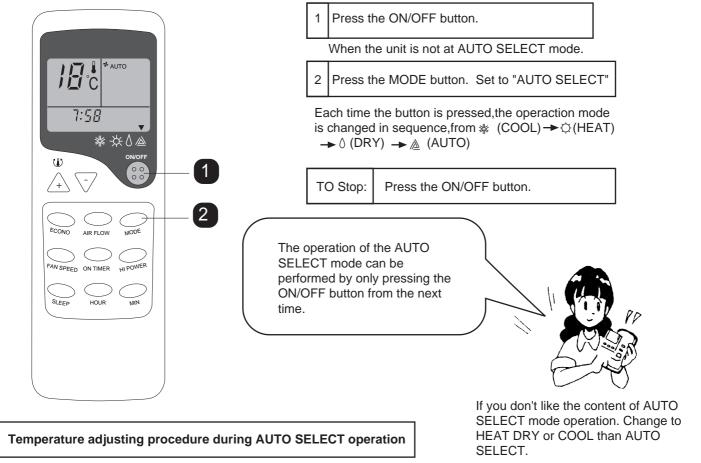
*AIR FLOW : NATURAL FLOW

*Operation starts by pressing the RUN button, and by repressing it operation stops.

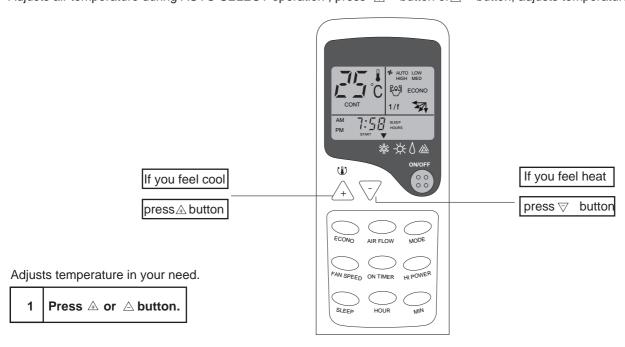


Auto mode operation procedure

Operates by selecting automatically the operation mode (DRY,COOL ,or HEAT, AIR-DRAFT) depending on the room temperature at starting. With the remote controller pointing the air conditioner.



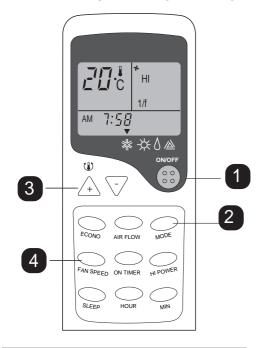
Adjusts air temperature during AUTO SELECT operation , press" \triangle "button or" button, adjusts temperature from "one" to "six".



Press riangle button once, change from -6 -5**-1 riangle +1 to 6, when indicates +6,press riangle button once, change from +6 +5**-1 riangle -1 to -6, when indicates -6,press riangle button , the indicationer isn't change, riangle button , the indicationer isn't change,

Cool/Heat/Fan/Dry mode operation procedure

Cool/Heat/Fan/Dry mode operation procedure



In the Cooling -only operation, the HEAT Mode will cancel

With the remote controller pointing toward the air conditioner.

Press the ON/OFF button .

Press the MODE select button Select the operation mode .

Press the △ or ▽ button .
Set to your favorite temperature press △ o▽ button

COOL, DRY, HEAT (FAN), AUTO

 HEAT
 COOL
 DRY

 18°C-30°C
 18°C-30°C
 18°C-30°C

If CONT, is selected, room temperature isn't controlled, operation being continuously.

Press the FAN SPEED button .
Set to your favorite air flow rate.

To stop: Press the ON /OFF button.

Changing procedure of the content of the operation Set to the content.

The content of the operation can be set or changed even while the air conditioner is off operation .

HIGH POWER operation

Press "HI POWER" button during "COOL "or "HEAT" operation, the air rate can be setted in "HIGH" and continue to operate 15 minues.

NOTE

During HIGH POWER operation, the air rate cann't be changed.

ECONOMY operation

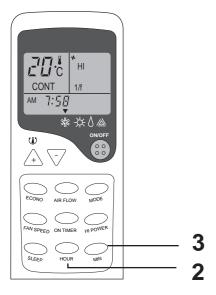
Press "ECONO" button during "COOL" "HEAT" or "DRY" operation, the setted-temperature can raise 2^oC and the air rate in "LO".

NOTE

During "ECONO" operation the air rate cann't be changed.

Present time setting procedure

When cells are inserted, the present is automatically set to AM 12:00 EX:Set to AM 10:30



1	Press the ON/OFF button. Push with the tip of a ball pen, etc. The time indicaor is flickering and can set the present time.
2	Press the HOUR button. (Set to AM 10:)
3	Press the MIN button. (Set to 30)
4	Press the clock switch again within 15 seconds.

NOTE The timer is set on the basis of the present time. so set the present time correctly.

SLEEP operation procedure

The unit stops operation at set time. The room temperature is automatically controlled with elapsed time so that the room isn't too cool during cooling, or isn't too heat during heating.

Ex: in case of stopped at after 7 hours.

When the air corditioner is off operation: with the remote controller pointing toward the air conditioner.

Press the ON/OFF button.

Select the SLEEP set time from among 1, 2, 3, 5, 7 or 10 hours.

Changing of set time Set to new by using SLEEP button. Press the SLEEP button.

Every time the button is pressed, indication changes in the flowing sequence,

1:00 2:00 3:00 5:00 7:00 10:00 SLEEP SLEEP SLEEP SLEEP SLEEP

Set to 7. The time lamp (yellow) on the unit illuminates.

The unit stops operation at the set time.

NOTE

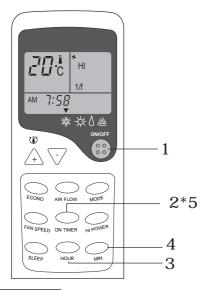
Depending on the temperature condition, the operation may be stopped earlier than the set time.

Releasing procedure

Press the SLEEP button to make the SLEEP indicator black.

ON - TIMER operation procedure

The room temperature is near the optimum temperature at the set time. So operation starts 5 to 60 minutes ahead of the set time.



Changing of set time

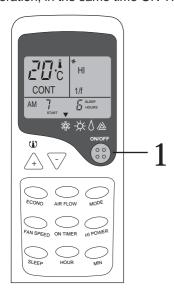
Set to a new time by using HOUR and MIN. buttons.

Releasing procedure

Press the ON TIMER button to make the timer indicator to CLOCK.

SLEEP and ON TIMER operation procedure

SLEEP operation, in the same time ON TIMER operation.



Releasing procedure

SLEEP operation
Press "SLEEP" button, indicate setted-time.
ON TIMER operation
Press "ON TIMER" button, set CLOCK in TIMER indicationer.

EX: You hope air-conditioner to stop for 3 hours, and begin to operate it the morning 6:00, the temperature near the setted one.

1 Press ON/OFF button

Setting SLEEP operation set sleep in 3 hours.

Setting ON TIMER operation

set ON TIMER at 7:00 ON TIMER Lamp(Yellow), indicate the SET completion.



Air-conditioner stops operation when the setted-SLEEP time out. Operation restarts 5 to 60 minutes ahead of the set time . TIME lamp goes off at the set time.

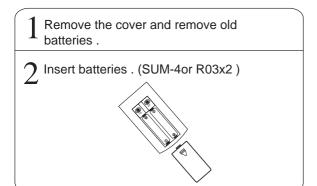
Changing set time

SLEEP operation
Use "SLEEP "button, set new time.

Batteries replacing procedure

Following cases signify dead cells . Replace the dead batteries with new ones .

- *Receiving sound is not emitted from the units when signal is transmitted .
- *Indicator becomes indistinct.



3 Short circuit the reset section with the tip of a ball -point pen



- 4 Close the cover .
- 5 Check 12:00AM indicator Set present time



- *Do not use an old battery together with a new one
- *Remove cells when the remote controller is not used for a long period .
- *The life of a cell made in conformity to JIS or IEC is 6 to 12 months in normal use . If it is used longer or an unspecified cell is used , a liquid leaks from the cell , causing the remote controller inperative .

Guideline of the life time is printed on the battery. The battery life may be shorter than of air conditioner depending on the date of manufacture. However, the battery may be alive ever after the nominal life time expired

Features of Heating Operations

Basic principles and performances

- * The machines absorb heat from the outdoor air and transfer it indoors so as to heat the room air. The heating capabilities through this principle of heat pump go up/down with the increase/decrease of the temperatures of the outdoor air.
- * It only needs a fairly short time for such hot air circulation system to raise the room temperature.
- * When the outdoor air temperature is very low, the system can be used together with other heating devices. But good ventilation should be maintained to ensure safety and prevent accidents.

Defrosting

When the outdoor air temperature is very low and humidity is very high, frosting will occur to the heat exchanger of the outdoor unit, which has negative impacts upon the efficiency of the heating performance. In such case, the automatic defrosting function will come into play. The heating operation will be stopped for 5-10 minutes to do the defrosting.

- * The fans of both the outdoor and indoor units are stopped. During the defrosting operation, the indicating light (green) will flash slowly.
- * During the defrosting, the outdoor unit might generate some steam. It is caused by fast defrosting, which is not a performance failure.
- * Upon the completion of the defrosting process, the heating operation is resumed.

Methods of Maintenance

The air conditioner must be turned off and plug pulled out before the maintenance is to be carried out.

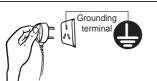
Before the season of operation

Check if there are any blocking materials in the intake and outlet vents of the indoor and outdoor units.





- 2 Check if the installation stand is corroded or rusty.
- Check if the machine is properly grounded.



- Check if the air filter is clean.
- **5** Connect to the power source.
- 6 Put batteries in the remote controller.

During the season of operation

The cleaning of the air filter screen (Standard intervals should be once every two weeks).

- Remove the air filter screen from the unit.
- * Gently press the tow lower ends of the grid and open it.
- * Gently pull up the air filter screen and take it out in the direction of your body.



if the screen is very dirty, please use lukewarm water (about 30°C) to clean it. Air it dry after the cleaning.

Note:

- *Do not use boiling water to clean the screen.
- *Do not bake the screen dry over a fire.
- *Do not exert too much force in pulling and stretching the screen.
- Install the air filter screen.

To operate the air conditioner without the air filter screen on will cause the interior of the machine dirty which might lead to poor performances or damages to the units.

Clean the air conditioner

- * Use a soft and dry cloth to rub the air conditioner, or use a vacuum cleaner to clean it.
- * If the air conditioner is very dirty, use a piece of cloth and soak it with neutral home-use detergent to do the cleaning.



After the season of operation

Set the temperature at 30°C and operate in the fan status for about half a day.



To make the interior of the units dry

2 Stop the operation of the machine and turn off the power switch.

The air conditioner will consume about 5W of electric power after the machine is turned off. For the purpose of energy saving and safety, it is advisable to pull the plug out during the non-operational seasons.

- 3 Clean and install the air filter screen.
- Clean the indoor and outdoor units.



5 Take the batteries out from the remote controller.

Note:

If the air filter screen is blocked by dust or dirt, the performance of cooling and heating will be affected, with the operation noise and power consumption increased. Therefore, the air filter screen should be cleaned regularly.

Treatment at service call

Please check the following before requesting after-sale service from your dealer .

The air conditioner does not operate at all .

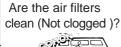
Is the power plug in an outlet?

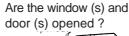
Is the time set to "ON" position?

Is there a power failure or a blown fuse?

Poor cooling or heating performance .

Is the room temperature setting suitable ?







Poor cooling performance.

Is direct sunlight entering the room?



Is there a heat source in the room?



Are there too many people in the room?



Room temperature can't be controlled . (Too cold or too hot)

Is the room temperature setting in the "CONT" position?

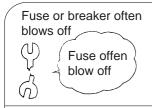


In the "CONT" mode , the Unit operates continuously without regard to the room temperature .

If the air conditioner does not operate properly ever after conducting the above checks , when the doubt still remains even after consulting page 13 or in case that such phenomena as those shown below, turn off the power and contact your distributor .

Cases requiring immediate contact with the distributor

Pull out the power plug immediately and inform to your distributor in the following situations:



Switch dose not actuate surely



Power plug or code is excessively hot .



Abnormal noise is heard during operation



Covering of power plug or code is broken .



Malfunction is observed TV , radio or other devices .



go by,

When faulty operation movement is observed when the RUN button is pressed, even after pulling out the power pulg and restarting the operation after 3 minutes, faulty movement does not disappear.

* If two indoor units air set at different mode operation, whether the latter-runned unit is feasible to run is described be low.

INDOOR UNIT(A)	INDOOR UNIT(B)	YES OR NO
	COOL	YES
COOL (RUN FIRST)	DRY	YES
, ,	HERT	NO
	FAN	YES
	COOL	NO
HEAT (RUN FIRST)	DRY	NO
,	HEAT	YES
	FAN	NO

^{*} If unfeasible, the buzzer of the latter-runned unit will make two ringings, then operates by FAN mode, please notice that it's a normal phenomenon.



We hope you will know the following when using the unit

The unit can not be restarted just after shut down . (RUN lamp is illuminating) Not operate	Restart is stopped for 3 minutes after shut down to protect the unit . Please wait for 3 minutes . Three-minute protection timer incorporated in the microcomputer actuates automatically . Except that power is connected , this function does not actuate .
Air is not blown out at starting of heating operation.	Air blow is stopped to prevent blowing out of cold air until the indoor heat exchanger is warmed .(2 to 5 min) (HOT KEEP)
Air is not blown out for 6 to 12 min , at heating operation .	When outdoor temperature is low and humidity is high , the unit sometimes performs defrosting automatically . Please wait . During defrosting , water or steam are raising from the outdoor unit .
Air is not blown out at DRY operation . RUN lamp is illuminating	Indoor fan is sometimes stopped to prevent vapor of dehumidified moisture and save energy .
Mist is blown out at COOL operation .	This phenomenon sometimes occurs when the temperature and humidity of the room are very high, but it will disappear with the lowering of the temperature and humidity.
Odor is sent out .	Air blown out during operation may smell . This is the smell of tobacco or cosmetics sticked to the unit .
Noise is heard cracking sound .	This is caused by the refrigerant that is circulating inside the unit.
Noise is heard cracking sound .After a power stoppage or after disconnecting the power supply plug.	This is caused by heat expansion or contraction of plastics.
Operation can not be restarted even if the power is recovered.	The memory circuit of the microcomputer is cleared. Operate the remote controller again to restart the operation .
Remote control signals are not received .	Remote control signals may not be received when signal receiver on the air conditioner body is exposed to direct sunlight or strong lighting . In that case , interrupt the sunlight or darken the lighting.
Moisture may from on the air outlet grilles .	If the unit is operated for a long period of time with the high humidity , moisture may from on the air outlet grilles and drip down .

Installation

Checklist of correct installation of air conditioners

Checklist of correct installation of air conditioners

- * Are there any articles or objects near the air conditioner, which might block the air ventilation or affect the normal operation of the machine?
- * Do not install the units in the following locations:
- * There might be leakage combustible gases;
- * There is much splashing of oils and similar substances.
- * When the air conditioner is to be used in the hot-spring area where there is the discharge of hydrogen sulfide or in the coastal area where the sea wind will sweep over, please contact the dealer and authorized maintenance people of our company for installation, because the corrosion caused by these substances might lead to malfunctions of the machine.
- * Please drain the water discharged from the indoor unit to proper place that cause no troubles to others.
- * The appliance shall not be installed in the laundry.

Pay attention to the operation noise

- * Before the installation of the machine units, make sure that the supporting stand is strong enough to support the weight, and it should not increase the noise and vibration of the machine.
- * Make sure that the cold/hot air discharged from the outlet vents of the outdoor unit and the generated noise will not cause troubles to the neighborhood.
- * Placing miscellaneous articles or objects near the air intake and outlet vents of the outdoor unit will cause malfunctions and increase noise. Refrain from placing these materials near the vents.
- * If abnormal noise is detected during the operation, please contact the dealer or authorized maintenance people of our company.

Guide to Installation

In order to ensure normal operation of the air conditioner, please have professionals or authorized maintenance people to do the installation in accordance with the following guides.

I.Selection of installation location

*.Indoor unit

- * Firmly install it on the rigid wall.
- * The air intake and outlet vents should be unblocked, and the cold air can be blown to the whole room.
- Away from thermal sources or sources of combustible gases.
- * Not exposed to direct sunlight.
- * Enough margin should be left around the unit to facil itate maintenance. (Figure 1 shows the recommended minimum dimensions)

Figure 1

