
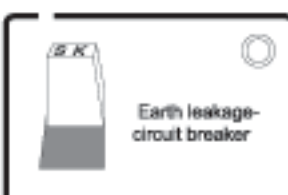
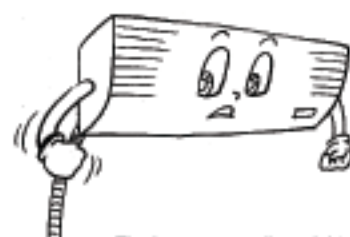
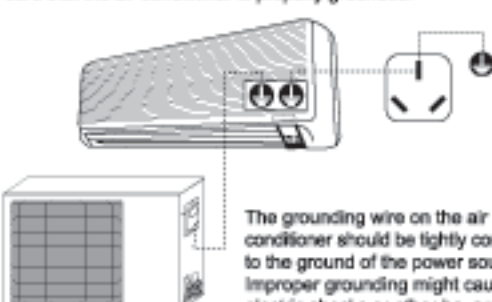


# Instructions To Users






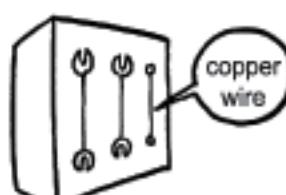
Please read the "Instruction Manual" carefully prior to the use of your air conditioner so as to ensure proper operations.

## 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.

<p>1. The units are not to be installed at places where there might be leakage of combustible gases.</p>  <p>In case that the leaked gas accumulates around the units, there might occur the accident of fire hazards.</p>	<p>Make sure that the earth leakage-circuit breaker is installed.</p>  <p>Absence of the earth leakage-circuit breaker might lead to electric shock and some other hazards.</p>
<p>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.</p>  <p>The loose connecting might result in fire hazard.</p>	<p>Make sure that the air conditioner is properly grounded.</p>  <p>The grounding wire on the air conditioner should be tightly connected to the ground of the power source. Improper grounding might cause electric shocks or other hazards.</p>

## Instructions for Operation

<p>Never try to stop the operation of the air conditioner by pulling out the power supply line.</p>  <p>Such performance might cause electric shocks or fire hazards.</p>	<p>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.</p>  <p>It might cause electric shocks, overheating, fire hazards or other accidents.</p>	<p>Do not press, stretch, damage, heat or modify the power line.</p>  <p>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.</p>
<p>Do not operate the switch by wet hands.</p>  <p>It might cause electric shocks.</p>	<p>Before the connector is plugged in, please make sure that there is no dust on it and that it is plugged fully in place.</p>  <p>If there is dust on the plug or if the plug is not in place, it might cause electric shocks or fire hazards.</p>	<p>Never use the fuse with incorrect capacity or any other metal wires.</p>  <p>The use of metal or copper wires for fuse might cause operational failures or fire hazards.</p>

## **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.

## **Contents**

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# Instructions To Users

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



During the cooling operation, curtains or window-blinds should be used to shade off the sunlight.

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



Place the heating sources out of the room.

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



It might lead to the incomplete combustion of these apparatuses.

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.

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 time.



Insufficient ventilation might lead to lack of oxygen or some other dangers.

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 high-speed 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.

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 keep exposed to the cool air for long time.



It might cause discomforts of the body, which is harmful to your health.

Do not clean the air conditioner with water.



It might cause electric shocks.

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.

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.

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



The falling down of the unit or the objects might cause human injuries and other accidents.

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.

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.

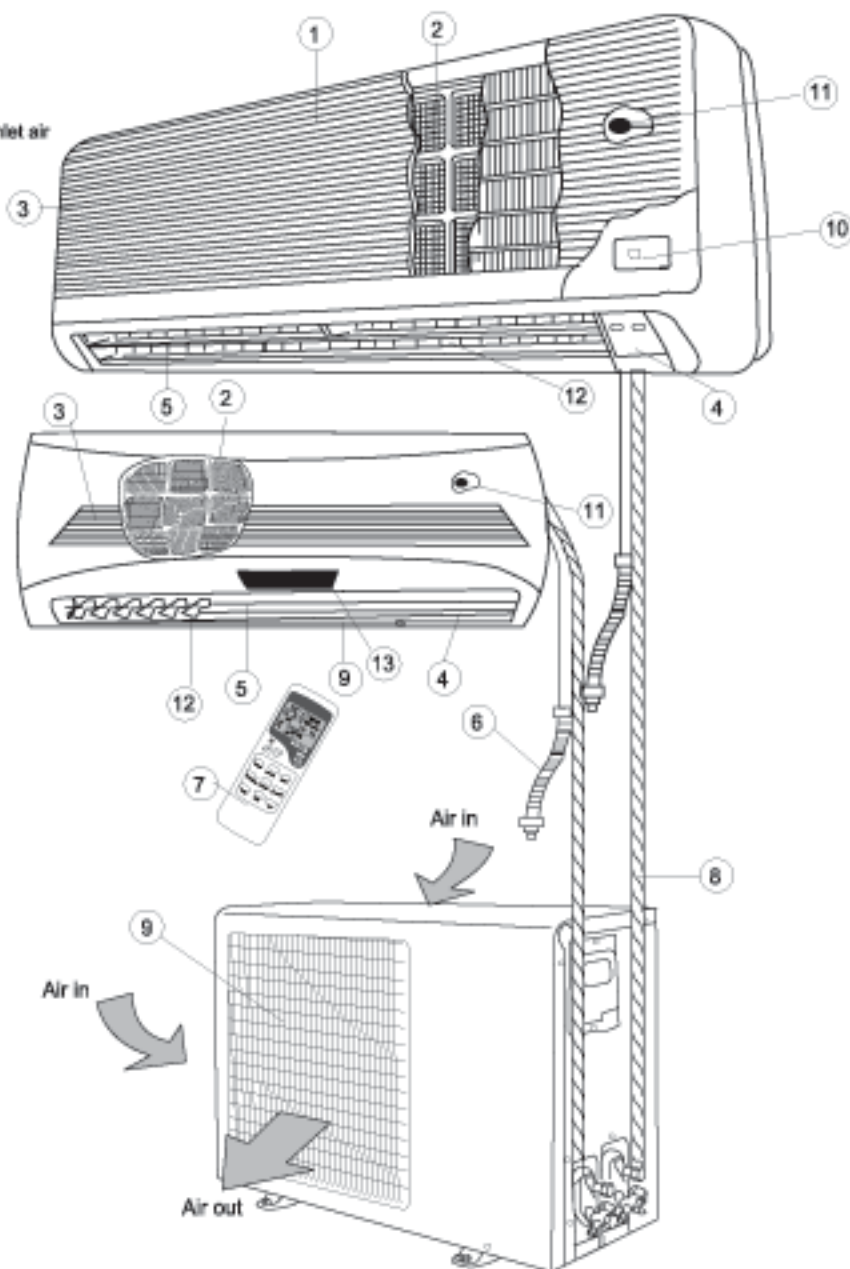
## Instructions for Removal and Repair

- 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.

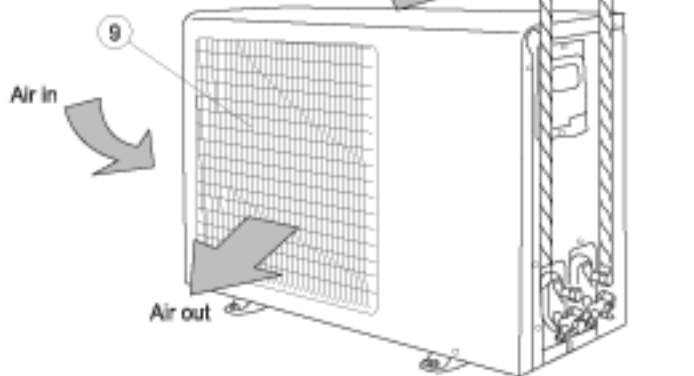
# The name of each part and its function

## Indoor Unit

- ① Surface panel
- ② Air filter Removes dust or dirtout of the inlet air
- ③ Air return grid Takes in the indoor air
- ④ Indication of lamps
- ⑤ Up/down air flow direction adjusting flap
- ⑥ Drain tube
- ⑦ Remote controller
- ⑧ Connection pipe
- ⑨ Air outlet cover Air blows out from here
- ⑩ Emergency operation key
- ⑪ Room temperature detecting probe
- ⑫ Left/right air flow direction adjusting fin
- ⑬ Operational performance/indications



## Outdoor unit

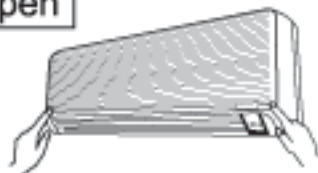


### How to close

Push down the air inlet grid and then push both sides of air inlet grid at the bottom.

## Unit operation section

### How to open



Lightly push both sides of the air inlet grid at the bottom and pull it to this side till a resistance is felt.

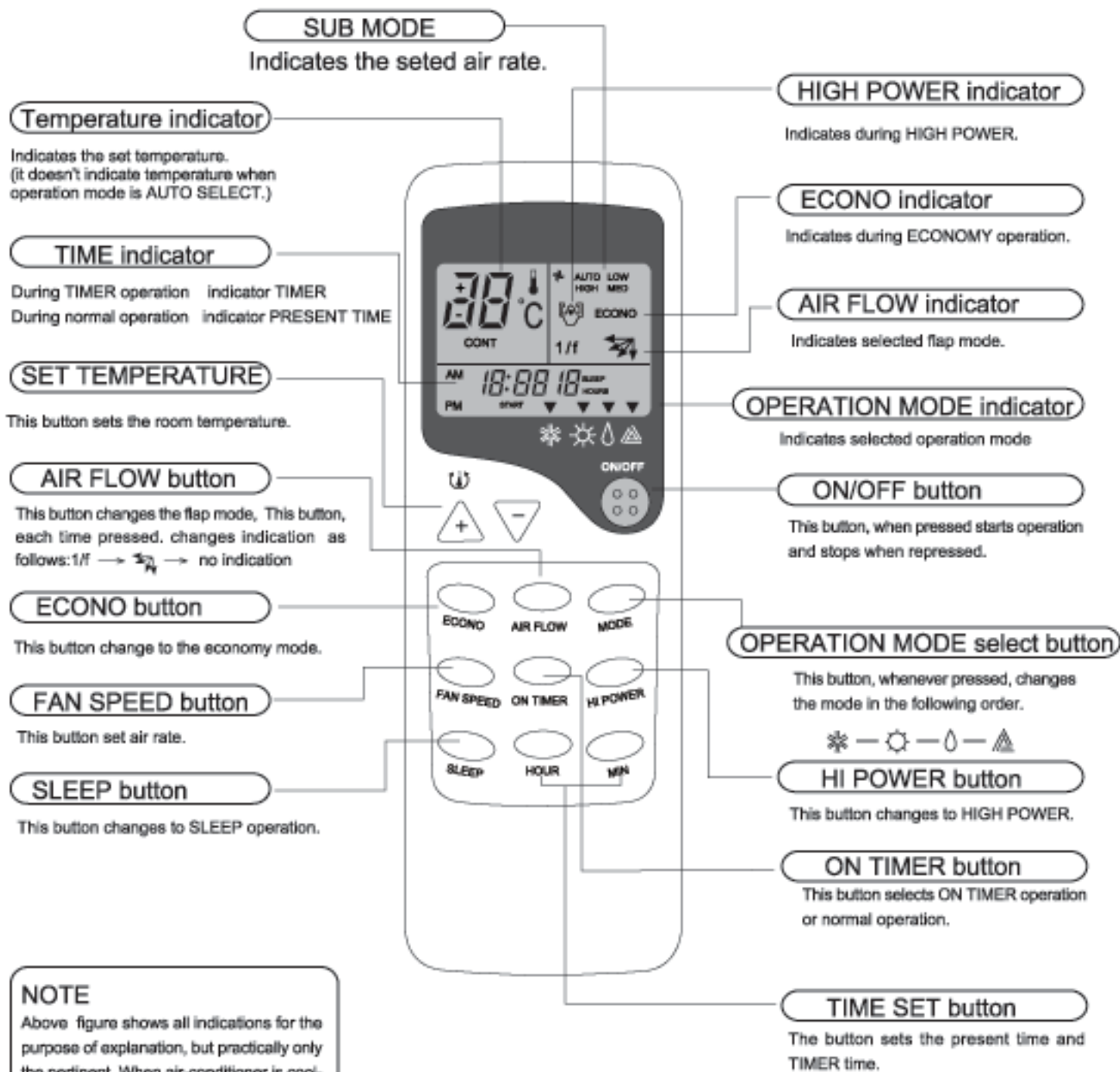


### Emergency operation key

This button can be used as an emergency measure to turn on/off unit when remote controller is not available.

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

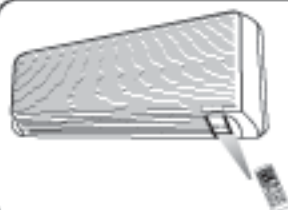
# Operation and indication sections of remote controller



## NOTE

Above figure shows all indications for the purpose of explanation, but practically only the pertinent. When air-conditioner is cool-mode, the HEAT change to AIR-DRAFT.

## Transmission procedure

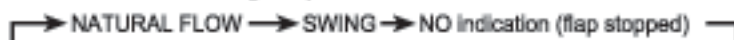


When each button on the remote controller is pressed with the remote controller pointing toward the air conditioner unit, signal is sent. When the signal is received correctly, the receiving sound is emitted from the unit.

# 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:

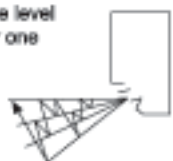


Change to the AIR FLOW mode.

### NATURAL FLOW

In COOL, DRY and FAN operation

Stops at the level position for one minute.



Sway operation

The flap operation as shown above will be repeated.

In HEAT operation



Sway operation

The flap operation as shown above will be repeated.

### SWING FLAP



Flap moves in upward and downward directions continuously.

## 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 started. Recommendable stopping angle of the flap.

COOL, DRY	(Horizontal blowing)	HEAT	(Start forward blowing)

CAUTION

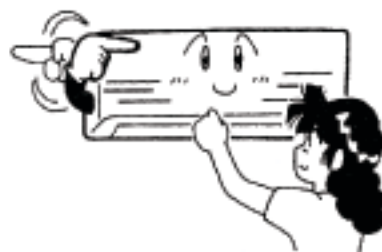
• Avoid direct air flow to the body for many hours.

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.

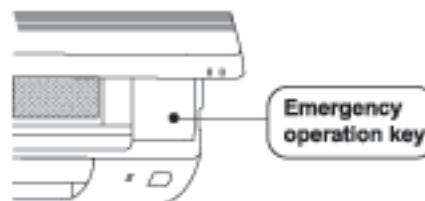
## Emergency run operation

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

Operation content

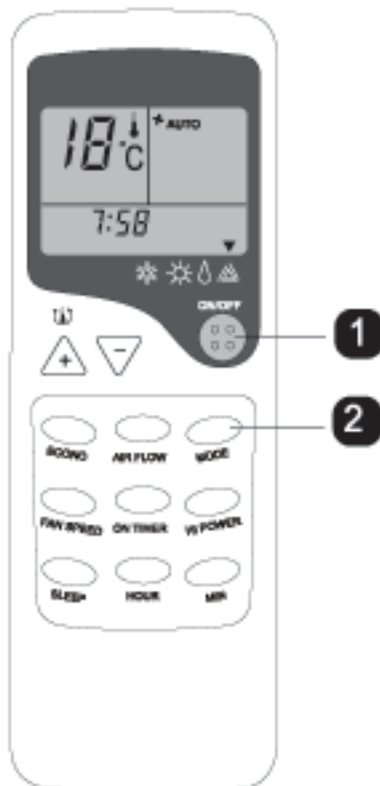
- OPERATION MODE : AUTO SELECT
- SUB MODE : AUTO
- AIR FLOW : NATURAL FLOW

• 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.



1 Press the ON/OFF button.

When the unit is not at AUTO SELECT mode.

2 Press the MODE button. Set to "AUTO SELECT"

Each time the button is pressed, the operation mode is changed in sequence, from ❄️ (COOL) → ☀️ (HEAT) → 💧 (DRY) → 🌬️ (AUTO)

TO Stop: Press the ON/OFF button.

The operation of the AUTO SELECT mode can be performed by only pressing the ON/OFF button from the next time.



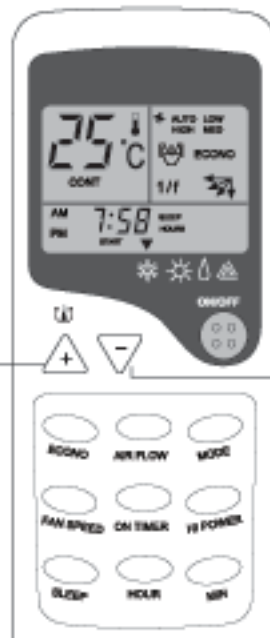
If you don't like the content of AUTO SELECT mode operation. Change to HEAT DRY or COOL than AUTO SELECT.

## Temperature adjusting procedure during AUTO SELECT operation

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

If you feel cool  
press ▲ button

If you feel heat  
press ▼ button



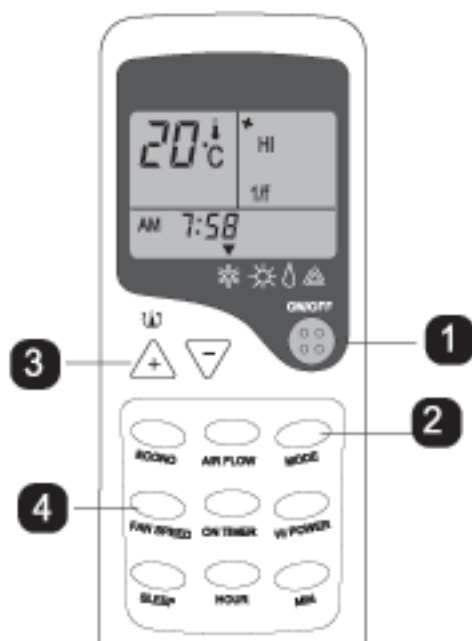
Adjusts temperature in your need.

1 Press ▲ or ▼ button.

Press ▲ button once, change from -6 -5... -1 → +0 +1 to 6, when indicates +6, press ▲ button, the indicator isn't change. Press ▼ button once, change from +6 +5... -1 → 0 -1 to -6, when indicates -6, press ▼ button, the indicator 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

### 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 minutes.

### NOTE

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

### ECONOMY operation

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

### NOTE

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

With the remote controller pointing toward the air conditioner.

**1** Press the ON/OFF button .

**2** Press the MODE select button  
Select the operation mode .  
COOL, DRY,HEAT (FAN), AUTO

**3** Press the  $\Delta$  or  $\nabla$  button .  
Set to your favorite temperature press  $\Delta$  or  $\nabla$  button

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.

**4** 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 .



# 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 indicator 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 conditioner is off operation: with the remote controller pointing toward the air conditioner.

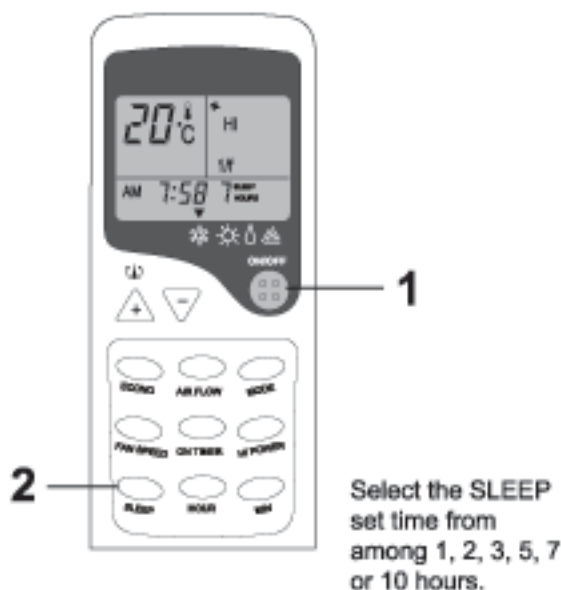
**1** Press the ON/OFF button.

**2** 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 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

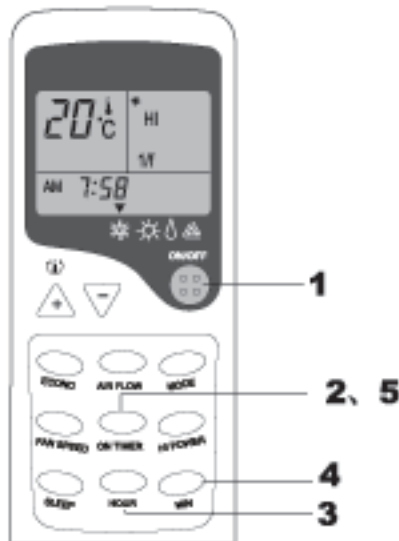
Press the SLEEP button to make the SLEEP indicator black.



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

# 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.



**1** Press the ON/OFF button.

**2** Press the ON TIMER button. Set to TIMER.

**3** Press the HOUR. button Set to AM 7:

**4** Press the MIN. button  
Every the button is pressed, indication change is the following sequence:  
set to :  —  —  — ..... —

**5** Press the ON TIMER button again.

### Changing of set time

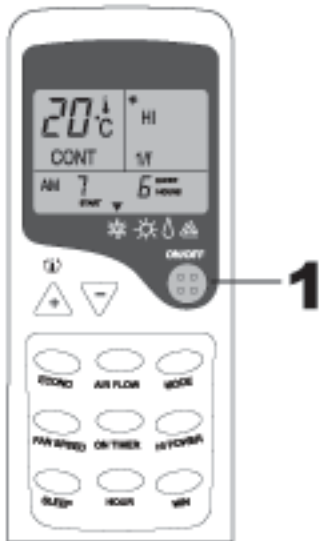
Set to a new time by using HOUR and MIN. buttons.

### 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.



EX: You hope air-conditioner to stop for 3 hours, and begin to operate it the morning 6:00, the temperature near the settled 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 settled-SLEEP time out. Operation restarts 5 to 60 minutes ahead of the set time . TIME lamp goes off at the set time.

### Releasing procedure

SLEEP operation  
Press "SLEEP" button, indicate settled-time.  
ON TIMER operation  
Press "ON TIMER" button, set CLOCK in TIMER indicator.

### Changing set time

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

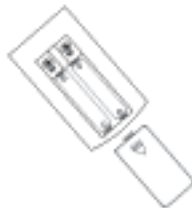
# Batteries replacing procedure

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 .

**1** Remove the cover and remove old batteries .

**2** Insert batteries . (SUM-4or R03x2 )



**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

## NOTE

- 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 inoperative .

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.

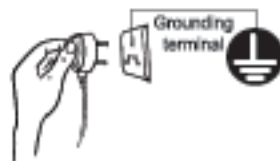
## Before the season of operation

- 1 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.

- 3 Check if the machine is properly grounded.



- 4 Check if the air filter is clean.

- 5 Connect to the power source.

- 6 Put batteries in the remote controller.

## After the season of operation

- 1 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.

- 4 Clean the indoor and outdoor units.



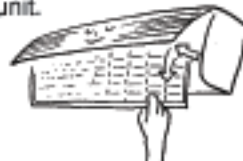
- 5 Take the batteries out from the remote controller.

## During the season of operation

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

- 1 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.



- 2 Clean the air filter screen.

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

Notes:

- 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.

- 3 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.



### 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 ?



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 .

Poor cooling or heating performance .

Is the room temperature setting suitable ?



Are the air filters clean (Not clogged) ?



Are the window (s) and door (s) opened ?



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 ?

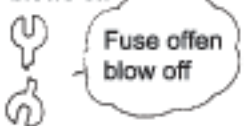


If the air conditioner does not operate properly ever after conducting the above checks , when the doubt still remains even after consulting page 13 or in case that such phenomena as those shown below , turn off the power and contact your distributor .

## Cases requiring immediate contact with the distributor

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

Fuse or breaker often blows off



Power plug or code is excessively hot .



Covering of power plug or code is broken .



Malfunction is observed TV , radio or other devices .



Switch dose not actuate surely



Abnormal noise is heard during operation



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 (RUN FIRST)	COOL	YES
	DRY	YES
	HERT	NO
	FAN	YES
HEAT (RUN FIRST)	COOL	NO
	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

<p>The unit can not be restarted just after shut down . ( RUN lamp is illuminating )</p> 	<p>Restart is stopped for 3 minutes after shut down to protect the unit .</p>  <p>Three-minute protection timer incorporated in the microcomputer actuates automatically . Except that power is connected , this function does not actuate .</p>
<p>Air is not blown out at starting of heating operation.</p>	<p>Air blow is stopped to prevent blowing out of cold air until the indoor heat exchanger is warmed .( 2 to 5 min ) ( HOT KEEP)</p>
<p>Air is not blown out for 6 to 12 min , at heating operation .</p>	<p>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 .</p>
<p>Air is not blown out at DRY operation . RUN lamp is illuminating</p>	<p>Indoor fan is sometimes stopped to prevent vapor of dehumidified moisture and save energy .</p>
<p>Mist is blown out at COOL operation .</p>	<p>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 .</p>
<p>Odor is sent out .</p>	<p>Air blown out during operation may smell . This is the smell of tobacco or cosmetics stucked to the unit .</p>
<p>Noise is heard cracking sound .</p> 	<p>This is caused by the refrigerant that is circulating inside the unit.</p>
<p>Noise is heard cracking sound .After a power stoppage or after disconnecting the power supply plug.</p>	<p>This is caused by heat expansion or contraction of plastics.</p>
<p>Operation can not be restarted even if the power is recovered.</p>	<p>The memory circuit of the microcomputer is cleared. Operate the remote controller again to restart the operation .</p>
<p>Remote control signals are not received .</p>	<p>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.</p> 
<p>Moisture may from on the air outlet grilles .</p>	<p>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 .</p>

# 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

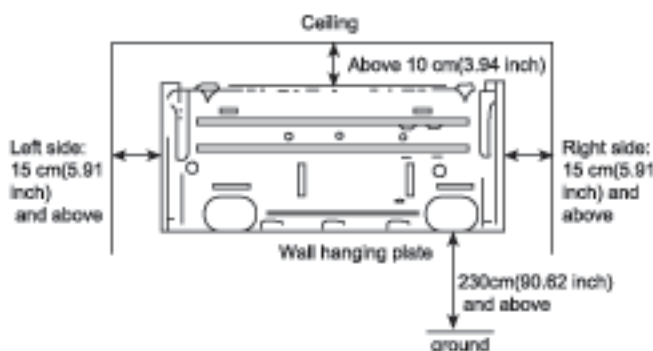
In order to ensure normal operation of the air conditioner, please have professionals or authorized maintenance people to do the installation in accordance with the following guides.

### I. Selection of installation location

#### I. 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 facilitate maintenance. (Figure 1 shows the recommended minimum dimensions)

Figure 1



# Installation

## 2. Outdoor units

- Leave enough margin around the unit to ensure sufficient air circulation (Figure 2 shows the recommended minimum dimensions)
- Try to avoid exposure to direct sunlight.
- Away from thermal sources or sources of combustible gases.
- Not to be installed in places where there is strong wind and dust.
- Not to be installed in places where the generated noise and discharged air flow will cause troubles to neighborhood.
- Keep at least two sides open to outside.

## II .Installation of the indoor units

Pipe lines can be connected in the directions of ①、②、③、④、 and ⑤ as indicated in Figure 3. When the pipelines are connected to the directions of ③、④ and ⑤, a groove for the pipes has to be opened at the proper place on the base stand.

## III .Installation of wall-mounting plate

Fix the wall-mounting plate firmly on the wall with screws. Make sure of the leveling of the plate. Slanted wall-mounting plate might jeopardize the smooth discharge of the condensed water.

## 2. Drill holes on the wall

Drill holes at places slightly below the wall-mounting plate, with hole diameter of 65mm and the outer edge of the hole 5-10mm lower (Figure 4) so that the condensed water can smoothly flow out. Cut the wall penetrating pipe to proper length according to the thickness of the wall (3-5mm longer than the wall thickness) and insert the pipe as indicated in Figure 4.

## 3. Installation of drain pipe

Install the pipelines of the indoor unit in accordance with the direction of the wall holes. Wrap tightly the drain pipe and the pipelines with tape. Make sure that the drain pipe is underneath the pipelines. (Figure 5) (When the drain pipe passes the room interior, some condensed water might occur to its surfaces if the humidity is very high).

## 4. Installation of indoor unit

Pass the connection wires, connecting pipelines and drain pipe through the wall hole. Hang the indoor unit on the hooks at the top of the wall-mounting plate so that the hooks at the bottom of the indoor unit match the hooks of the wall-mounting plate. (Figure 6)

Figure 2

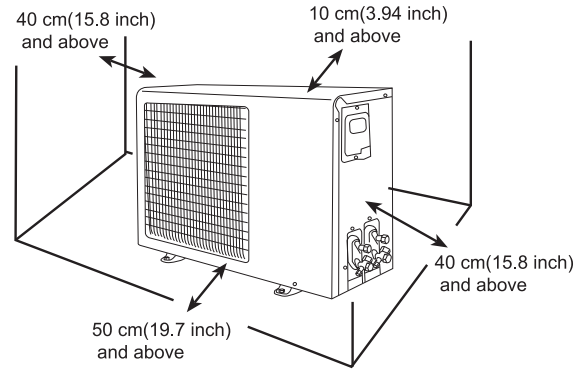


Figure 3

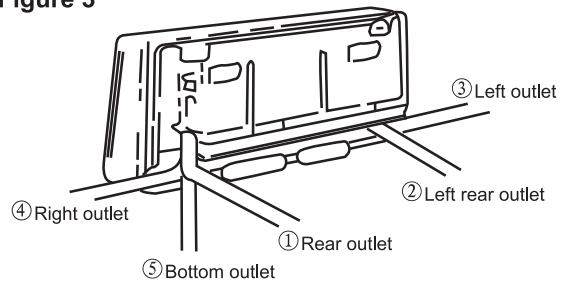


Figure 4

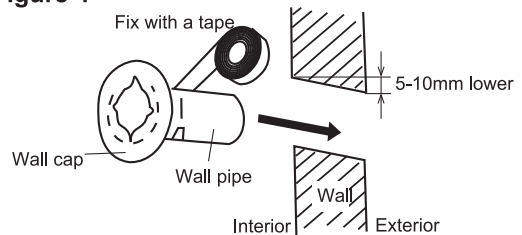


Figure 5

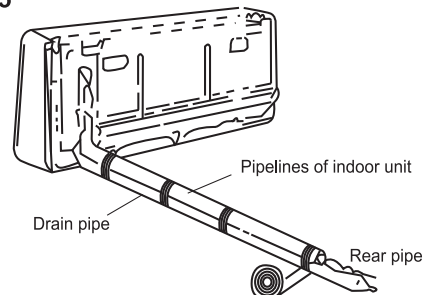
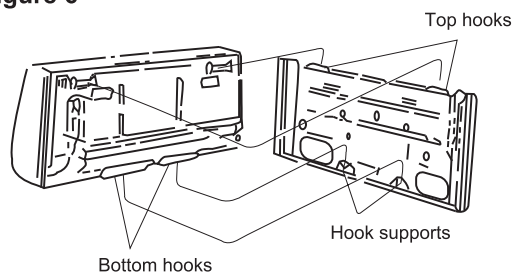


Figure 6





# Installation

## Inspections:

- See if the hooks at the top and bottom are firmly fixed.
- See if the position of the master unit is properly leveled.
- The drain pipe should not curve upward (Figure 7).
- The drain pipe should be at the lower part of the wall pipes (Figure 7).

## 5. Wire connections of indoor and outdoor units

Connect the wires of the indoor and outdoor units properly according to the schematic diagram.

**Note:** Do not connect the wires in a wrong way, otherwise electric malfunctions will be caused and even damages to the units will occur.

If the supply cord is damaged, it must be replaced by the manufacture or its service agent or a similarly qualified person in order to avoid a hazzard.

The plug shall be accessible after installed the appliance.

### III .Installation of outdoor units

The outdoor unit should be installed on a rigid base or stand. The installation surface should be as leveled as possible.

### IV .Installation the connection pipe

- Align the center of the piping flare with then relevant valve.
- Screw in the flare nut by hand and then tighter the nut with spanner and torque wrench refer to the diagram at right.

**Note:**Exceeding tightening torque will damage the flare surface.  
Tightening torqe table

Hex nut diameter	Tightening torque(N.m)
Ø 6mm(1/4")	15-20
Ø 9.5mm(3/8")	31-35
Ø 12mm(1/2")	50-55

### V .Wire connections for outdoor units

As shown in Figure 9

- Remove the drawer of the outdoor unit, properly connect the wires to the corresponding terminals in accordance with the electric schematic diagram and make sure that the connection is firmly done.
- Use a press plate to fix the wires firmly, and re-install the drawer.

Note:

- Make sure that the wiring has been connect correctly.
- Wrong wiring connection will cause electrical mal-function.
- Do not pull the wire when fixing it with wire clamp.

Figure 7

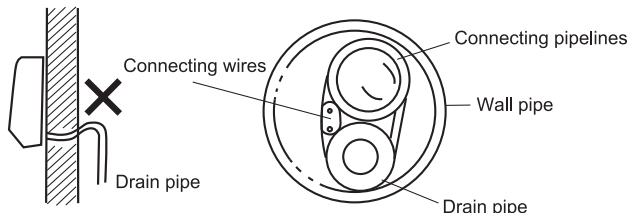


Figure 8

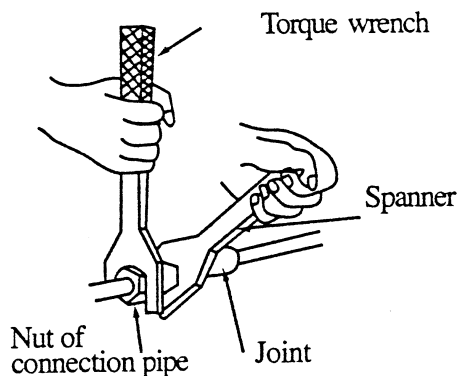
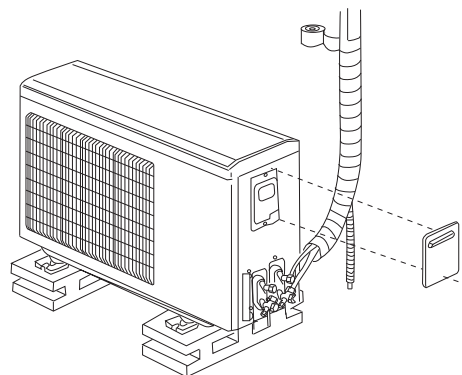
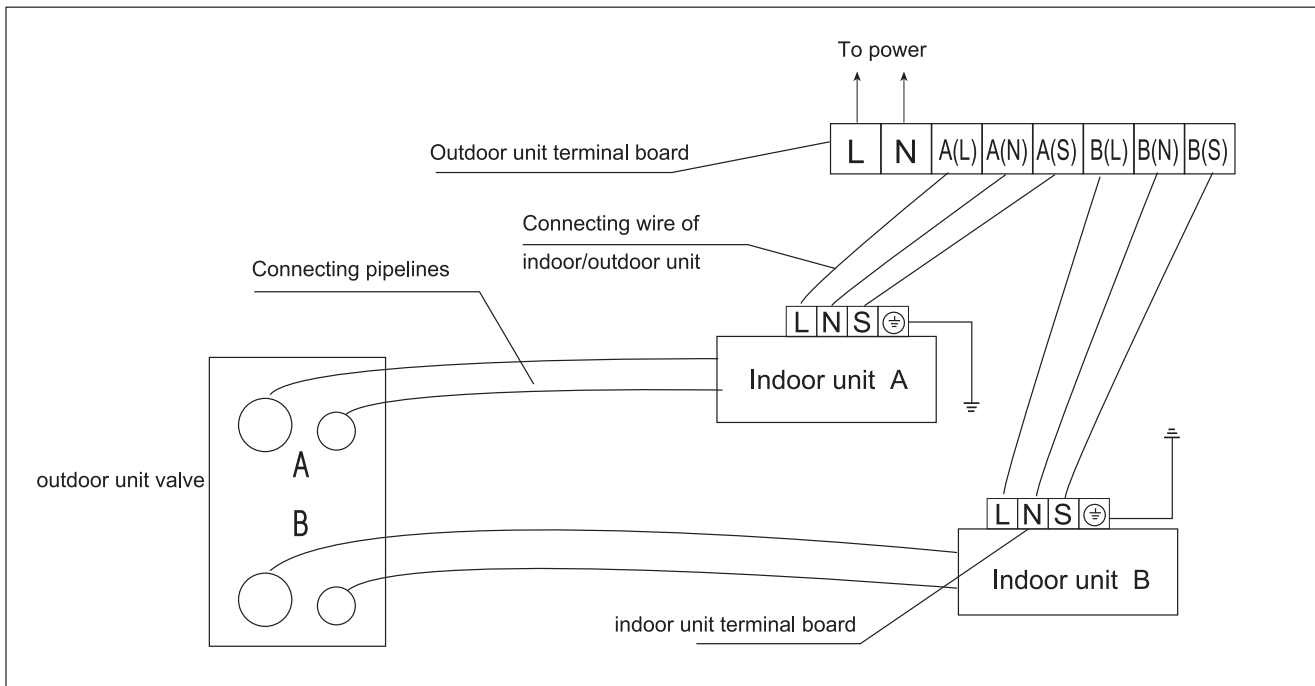


Figure 9



# Installation

## Wire and pipe connections for units



NOTE: The height difference should be less than 15 meters between the indoor unit A and B, 20 meters less between indoor unit and outdoor unit after installing.

## VI Refrigerant adjustment

If the liquid pipe length exceeds 10m, additional refrigerant charge is required.

liquid Pipe length	10m maximum	No additional charge require	-	
	exceeding 10m	Additional charge require	Refrigerant to be added	30g/m

### example:

After the installation if the length of liquid connecting pipelines is 15 meters, the refrigerant adjustment should be 150g.

### NOTE:

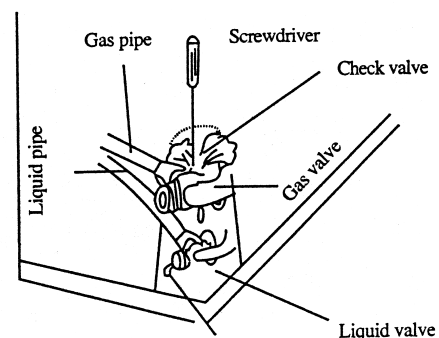
The length of liquid connecting pipelines can not exceed 20 meters.

## VI Air purging and leakage test

### R22:

1. Remove the flare nuts from the cut-off valves of the outdoor unit.
2. Align the center of the piping flare with the relevant valve, and screw in the flare nut about 3~ 4 turns hand.
3. Tighten the flare nut with spanner and torque wrench.
4. Remove the valve caps of the gas valve and liquid valve and the service port nut.
5. Loosen the valve stem of the liquid valve with a hex wrench.
6. Push the check valve core of the gas valve to discharge air and moisture remaining in the refrigerant system.
7. Stop pushing the valve core as soon as the refrigerant starts to be discharged, and reinstall the service port nut.
8. Open the liquid valve and gas valve entirely (shown in Fig.10).

Figure 10



# Installation

9. Tighten the valve caps and test leakage at all joints of the piping(both indoor and outdoor) with liquid soap or leak detector.
10. If possible, discharge air and moisture remaining in the refrigerant system with a vacuum pump.(shown in Fig.11)
11. CAUTION: If there is no exhaust or the exhaust capacity is not enough, please make sure all wires are connected correctly first, then electrify the outdoor main power("L" "N") (no need to power on) for tens of seconds. When the corresponding electric expansion valve opens, exhaust again.

## R407C/R410a:

NOTE:During the installation or future maintenance,special material are for copper pipes,many-handed pressure gauge, valve,Four-way valve,compressor etc which touch refrigerant,These are different from R22.

1. Remove the flare nuts from the cut-off valves of the outdoor unit.
2. Align the center of the piping flare with the relevant valve, and screw in the flare nut about 3~ 4 turns hand.
3. Tighten the flare nut with spanner and torque wrench.
4. Remove the valve caps of the gas valve and liquid valve and the service port nut.
- 5.Connect the low-pressure needle value with the softly tube of refrigerant bottle.Open the bottle switch to let the air from the small pipe flared nut for about 10 seconds.Tightened the flared nut after the with a torque force as indicated in Table 1.Then close the bottle switch,loose the needle value junction and use a socket head cap wrench to with stand the needle to let remain refrigerant out completely from the pipe.
6. Stop pushing the valve core as soon as the refrigerant starts to be discharged, and reinstall the service port nut.
7. Open the liquid valve and gas valve entirely(shown in Fig.11).
- 8.Prevented there is any leakage stop adding refrigerant and all refrigerant in system must be let out,then supply the lack,evacuation, repour, and lay the refrigerant-container refering to the detailed description on it for pouring in liquid careful attention should be paid during pouring. Furthermore all the R407c/R410a have to be let out if is poured too much,then pour again.  
the way above is similarly available in future maintenance.

## VII Outdoor condensation drainage(Heat pump type only)

When the unit is heating or defrosting, the waste water formed in the outdoor unit can be drained out reliably through the drain hose.

### Installation:

Install the outdoor drain elbow in the  $\varnothing$  25 hole on the base plate as shown in Fig. 12, and joint the drain hose to the elbow, so that the waste water formed in the outdoor unit can be drained out to a proper place.

## VIII .Finishing touches

- Use thermal tube to wrap the joints and wrap the tube tightly with ethylene tapes.
- Fix the wrapped pipelines on the exterior wall with clamps.
- Fill in the gaps left over by the pipeline hole and wall hole to prevent rain-water from entering.

## IX .Test running

- Connect to the power source, check if the function selection keys on the remote controller are working properly.
- Check if the room temperature adjustments and timer settings are working properly.
- Check if the drain is smooth.
- Check if there is any abnormal noise or vibration during operation.
- Check if there is leakage of refrigerant.

Figure 11

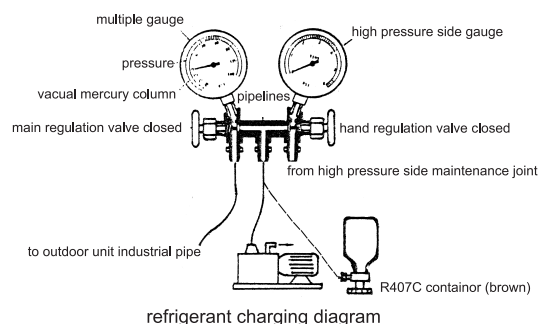
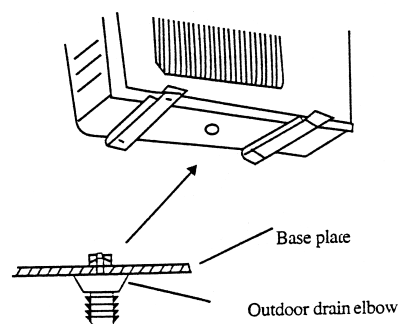


Figure 12



# Is the unit installed correctly?

## Suitable Installation Position

Isn't there anything which prevents ventilation or obstructs operation in front of the indoor unit ? Do not install the unit following place .

Inflammable gases may leak .

Oil splashes a lot .

In case where the unit is used in such places as poisonous or sultry gases are generated or seaside district exposed to sea breezes corrosion may cause malfunction . Consult with your distributor .

Air conditioner body and remote controller must be 1 m or more away from a TV or a radio .

Drain the dehumidified water from the indoor unit to a place which drains well .

## Pay attention to operation noise

● When installing the unit , choose a place which can stand the weight of the unit well and does not increase the operation noise or vibration . Especially where there is a possibility that vibration be transmitted to the house , fix the unit by inserting attached vibration -proof pads between the unit and fittings .

● Choose the place where hot air and operation noise from the outlet of the outdoor unit do not annoy the neighborhood .

● Things left near the outlet and inlet of the outdoor unit cause malfunction or increased operation noise .

Do not leave obstacles near the outlet and inlet .

● If irregular sound is heard during operation , consult with your distributor .

## Inspection and Maintenance

According to the service conditions and operating environment , the inside of the air conditioner will become dirty after several seasons ( 3 to 5years ) of service , resulting in decreased operating performance .Inspection and maintenance are recommended in addition to usual cleaning (The air conditioner can be used for a longer period and without anxiety .)

As to inspection and maintenance , consult your dealer or any one of business offices of dealing companies .(Service charge is required in this case .)

We recommend to perform inspection and maintenance during an off seasons.