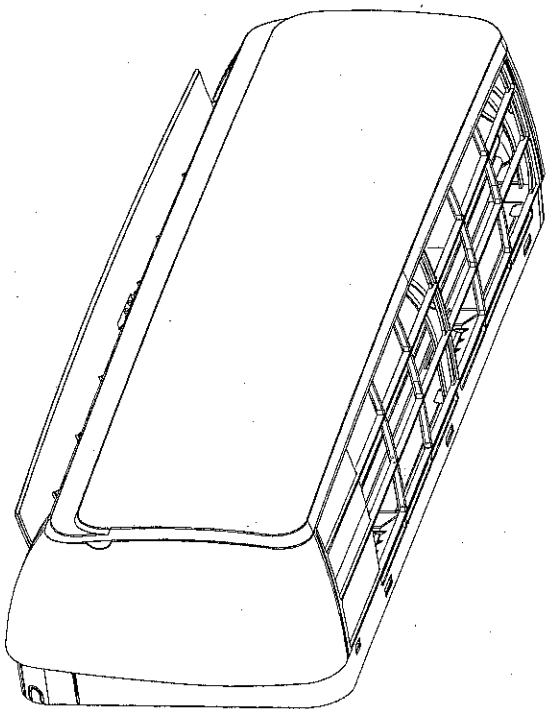




# AIR CONDITIONER OWNER'S MANUAL



Thank you for selecting super quality Air Conditioner. To ensure satisfactory operation for many years to come, this Owner's Manual should be read carefully before using your air conditioner. After reading, store it in a safe place. Please refer to the manual for questions on use or in the event that any irregularities occur.

This Air Conditioner should be used for household use.

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## Preparation before use

Before using the air conditioner, be sure to check and preset the following.

### • Remote Controller presetting

The remote controller is **NOT** presetting as Cooling Only Air Conditioner or Heat Pump by manufacturer.

Each time after the remote controller replaces batteries or is energized, the arrowhead will flash on the front of "Heat" or "Cool" on LCD of the remote controller.

User can preset the remote controller type depending on the air conditioner type you have purchased as follows:

Press any button when the arrowhead flashes on the front of "Heat", Heat Pump is set.

Press any button when the arrowhead flashes on the front of "Cool", Cooling Only is set.

If you don't press any button within 10 seconds, the remote controller is preset as Heat Pump automatically.

### Note:

If the air conditioner you purchased is a Cooling Only one, but you preset the remote controller as Heat Pump, it doesn't bring any matter. But if the air conditioner you purchased is a Heat Pump one, and you preset the remote controller as Cooling Only, then you CAN NOT preset the Heating operation with the remote controller.

### • Auto-restart Presetting:







the appliance is preset as no auto-restart function by manufacturer, if Auto-restart function is needed, follow the below step to activate this function:





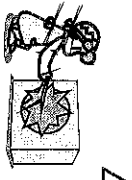
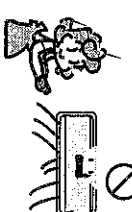

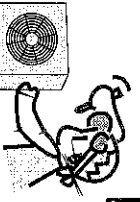
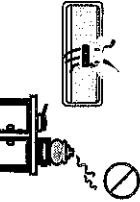
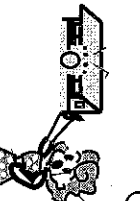
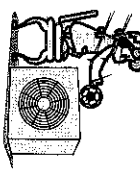
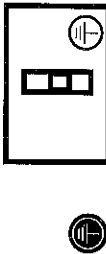
- 1) Make sure air conditioner is turned off;
- 2) Press down and hold the Emergency button (ON/OFF) on the indoor unit until turning on the air conditioner.
- 3) Keep pressing the Emergency button for over 10s until three short beeps are heard.

Then Auto-restart function is activated. To cancel the Auto-restart function, repeat above procedure until four short beeps are heard.

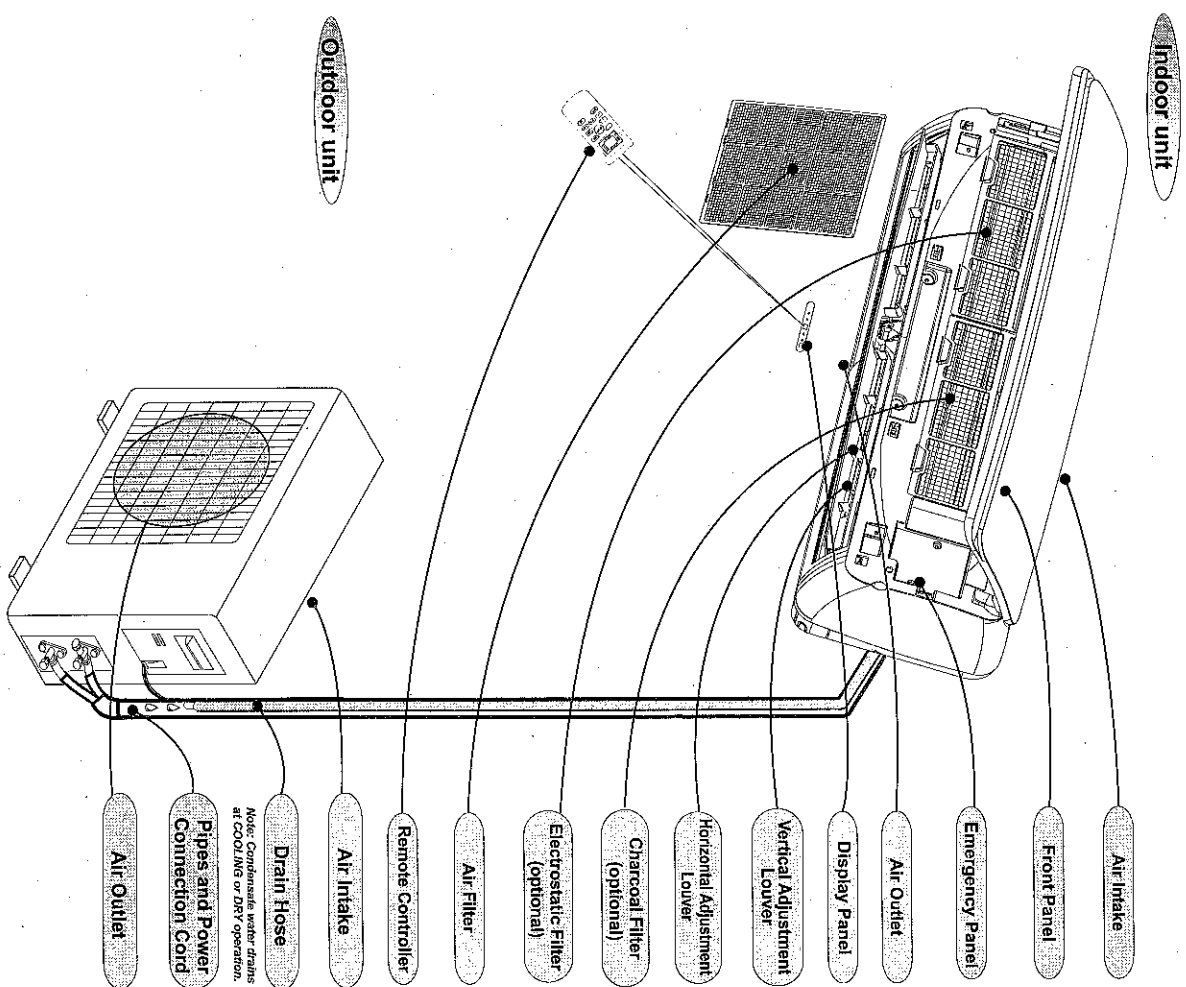
## Safety precautions

Symbols in this Use and Care Manual are interpreted as shown below.

-  Be sure not to do.
-  The feature of the appliance, instead of a fault.
-  Pay attention to such a situation.
-  Warning: Incorrect handling could cause a serious hazard, such as serious injury, death, etc.
-  Be sure to follow this instruction.
-  Grounding is essential.

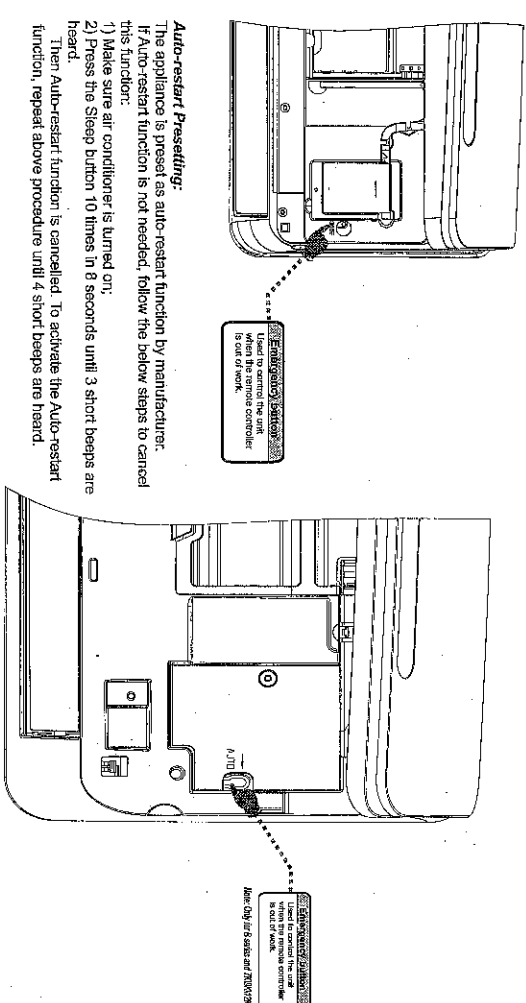
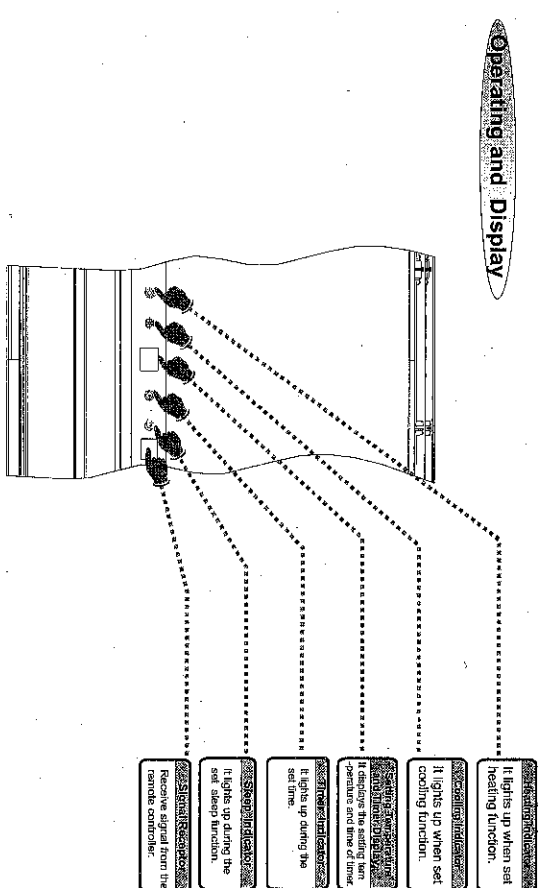
 <p>Use correct power supply in accordance with the rating plate requirement. Otherwise, serious faults or hazard may occur or a fire maybe break out.</p>	 <p>Keep the power supply circuit breaker or plug from dirt. Connect the power supply cord to it firmly and correctly, lest an electric shock or a fire break out due to insufficient contact.</p>	 <p>Do not use the power supply circuit breaker or pull off the plug to turn it off during operation. This may cause a fire due to spark, etc.</p>
 <p>Do not knit, pull or press the power supply cord, lest the power supply cord be broken. An electric shock or fire is probably caused by a broken power supply cord.</p>	 <p>Never insert a stick or similar obstacle into the unit. Since the fan rotates at high speed, this may cause an injury.</p>	 <p>It is harmful to your health if the cool air reaches you for a long time. It is advisable to let the air flow be deflected to the whole room.</p>
 <p>Turn off the appliance by remote control firstly before cutting off power supply if malfunction occurs.</p>	 <p>Do not repair the appliance by yourself. If this is done incorrectly, it may cause an electric shock, etc.</p>	 <p>Prevent the air flow from reaching the gas burners and stove.</p>
 <p>Do not touch the operation buttons when your hands are wet.</p>	 <p>Do not put any objects on the outdoor unit.</p>	 <p>It is the user's responsibility to make the appliance be grounded according to local codes or ordinances by a licensed technician.</p>

## Identification of parts



The figures in this manual are based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner you have selected.

## Identification of parts

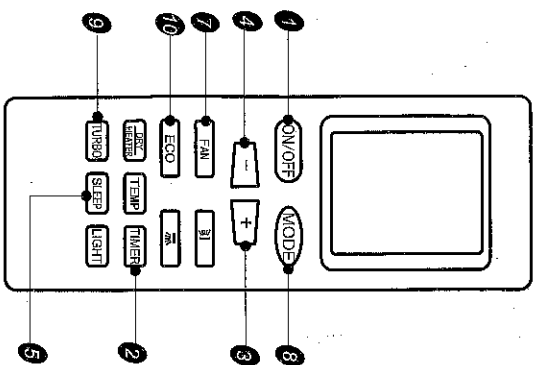
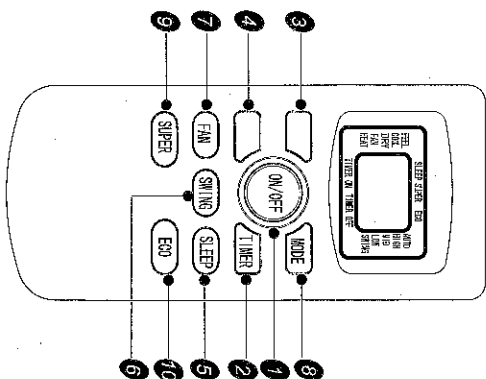


The shape and position of the switches and indicators may vary from different models, but their function are similar.

# Remote controller

## Remote controller

The remote controller transmits signals to the system.



Note: Each mode and relevant function will be further specified in following pages.  
The remote controller is general type, some keys are printed on the remote controller, but do not have this function.

- 1 ON/OFF button**  
Used to start and stop operation when pressed.
- 2 TIMER button**  
Used to select TIMER operation.
- 3 UP button (TOO COOL button)**  
Used to increase the set room temperature and time.
- 4 DOWN button (TOO WARM button)**  
Used to decrease the set room temperature and time.
- 5 SLEEP button**  
Used to set or cancel sleep mode operation.
- 6 VANE control button**  
Used to adjust airflow direction.
- 7 FAN SPEED control button**  
Used to select the indoor fan motor speed: Auto, High, Mid and Low.
- 8 MODE button**  
Used to select the type of operation mode: Feel, Cooling, Dry, Fan and Heating(Only for Heat Pump).
- 9 SUPER/TURBO button**  
Used to set or cancel superstrong mode operation.
- 10 ECO button**  
Used to set or cancel economic mode operation.

# Remote controller

## Remote controller

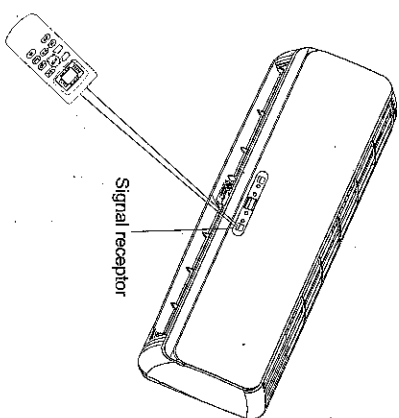
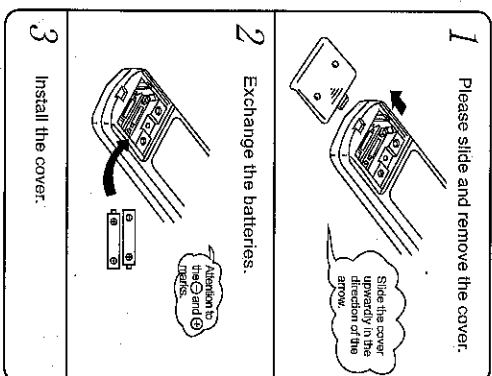
### How to Insert the Batteries

Remove the battery cover according to the arrow direction.  
Insert new batteries making sure that the (+) and (-) of battery are matched correctly.  
Reattach the cover by sliding it back into position.

Note:  
Use 2 LR03 AAA(1.5volt) batteries. Do not use rechargeable batteries.  
Replace batteries with new ones of the same type when the display becomes dim.

### Storage and Tips for Using the Remote Controller

Keep the remote controller safe and dry while not using.



### How to Use


To operate the room air conditioner, aim the remote controller to the signal receptor.  
The remote controller will operate the air conditioner at a distance of up to 7m when pointing at signal receptor of indoor unit.

# Operation instructions

## FEEL mode operation procedure

Operates by selecting automatically the operation mode(HEATING, DRY, FAN, COOLING) depending on the room temperature at starting.

With the remote controller pointing toward the air conditioner:

Press  button, when the appliance receives the signal, the RUN indicator of the indoor unit lights up.



When the unit is not at FEEL mode:

### Selecting FEEL mode





Press the MODE select button.  
Move the MODE to the FEEL position.

Operation mode selection table

Indoor temperature	Operation mode	Target temperature
Less than 20°C	HEATING FOR HEAT PUMP TYPE FAN FOR COOL ONLY TYPE	23°C
20°C - 26°C	DRY	18°C
Over 26°C	COOLING	23°C

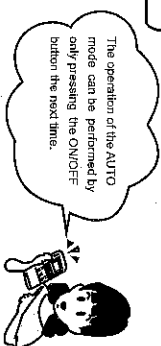
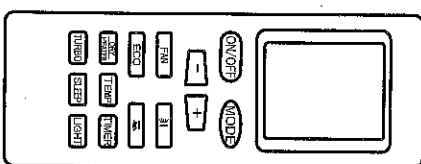
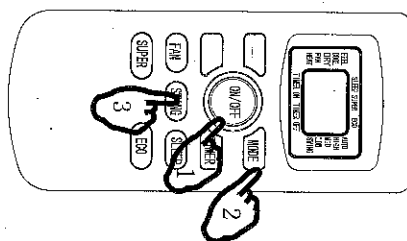
Air temperature adjustment is possible even during FEEL operation.  
There are 6 levels of adjustment possible with the  button or the .

### Setting temperature

Press the  button or the  button.  
When the  button is pushed, the temperature increases 1°C.  
After temperature add 2°C, the indicator did not change.  
When the  button is pushed, the temperature reduces 1°C.  
After temperature reduces 2°C, the indicator did not change.

NOTE

Air is not blown out during operation.  
Change mode during operation, sometimes it can not run at once.



• If you don't like the content of FEEL mode operation, change to HEATING, DRY or COOLING than FEEL.

# Operation instructions

## TIMER mode

It is convenient to set the timer on with **TIMER** button when you go out in the morning to achieve a comfortable room temperature at the time you get home. You can also set timer off at night to enjoy a good sleep.

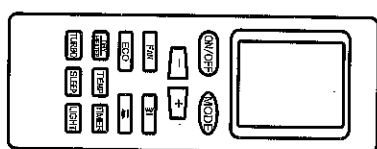
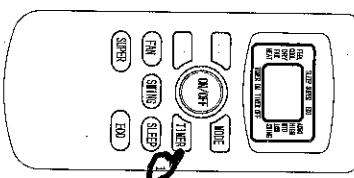
When the remote controller is off, press the **TIMER** button to set a switch-on timer, press again, the setting cancel.



When the remote controller is on, press the **TIMER** button to set a switch-off timer, press again, the setting cancel.

Press **UP** and **DOWN** button to set time.  
Time setting is 30-minutes units.

Note: After setting the timer, check that **TIMER INDICATOR** lamp of the indoor unit lights.



## Maintenance

### Front panel maintenance

- 1 Cut off the power supply**  
Turn off the appliance first before disconnecting from power supply.
- 2 Grasp position "a" and pull outward to remove the front panel.**
- 3 Wipe with a soft and dry cloth.**  
Use lukewarm water (below 40 °C) to clean if the appliance is very dirty.  
Use a dry and soft cloth to clean it.
- 4 Never use volatile substance such as gasoline or polishing powder to clean the appliance.**
- 5 Never sprinkle water onto the indoor unit.**  
Dangerous  
Electric shock
- 6 Reinstall and shut the front panel.**  
Reinstall and shut the front panel by pressing position "b" downward.

### Air filter maintenance

It is necessary to clean the air filter after using it for about 100 hours.  
Clean it as follows:

- 1 Stop the appliance and remove the air filter.**
- 2 Clean and reinstall the air filter.**  
If the dirt is conspicuous, wash it with a solution of detergent in lukewarm water. After cleaning, dry well in shade.
- 3 Close the front panel again.**  
☒ Clean the air filter every two weeks if the air conditioner operates in an extremely dusty environment.

## Protection

### Operating condition

The protective device maybe trip and stop the appliance in the cases listed below.

<b>HEATING</b>	Outdoor air temperature is over 24°C Room air temperature is below -7°C Room temperature is over 27°C
<b>COOLING</b>	Outdoor air temperature is over *43°C Room temperature is below 21°C Room temperature is below 18°C
<b>DRY</b>	Room temperature is below 18°C

\* For Tropical (T3) Climate condition models, the temperature point is 52°C instead of 43°C.  
If the air conditioner runs in COOLING or DRY mode with door or window opened for a long time when relative humidity is above 80%, dew may drip down from the outlet.

### Noise pollution

- Install the air conditioner at a place that can bear its weight in order to operate more quietly.
- Install the outdoor unit at a place where the air discharged and the operation noise would not annoy your neighbors.
- Do not place any obstacles in front of the air outlet of the outdoor unit lest it increases the noise level.

### Features of protection

- 1 The protective device will work at following cases.**
  - Restarting the unit at once after operation stops or changing mode during operation, you need to wait 3 minutes.
  - Connect to power supply and turn on the unit at once, it may start 20 seconds later.
- 2**
  - If all operation has stopped, press ON/OFF button again to restart.
  - Timer should be set again if it has been canceled.

### Inspection

After using for long time, the air conditioner should be inspected on the following items.

- Overheat of the power supply cord and plug or even a burned smell.
- Abnormal operating sound or vibration.
- Water leakage from indoor unit.
- Metal cabinet electrified.

☒ Stop the air conditioner if above trouble occurs. It is advisable to have a detail inspection after using it for 5 years even if none above occurs.

### Features of HEATING mode

**Preheat**  
At the beginning of HEATING operation, the airflow from indoor unit is discharged 2-5 minutes later.

**Afterheat**  
After the finishing of HEATING operation, the airflow from indoor unit is discharged 2-5 minutes.

**Defrost**  
In HEATING operation the appliance will defrost (de-ice) automatically to improve efficiency. This procedure usually lasts 2-10 minutes. During defrosting, fans stop operation. After defrosting completes, it returns to HEATING mode automatically.

Note: Heating is NOT available for cooling only air conditioner models.

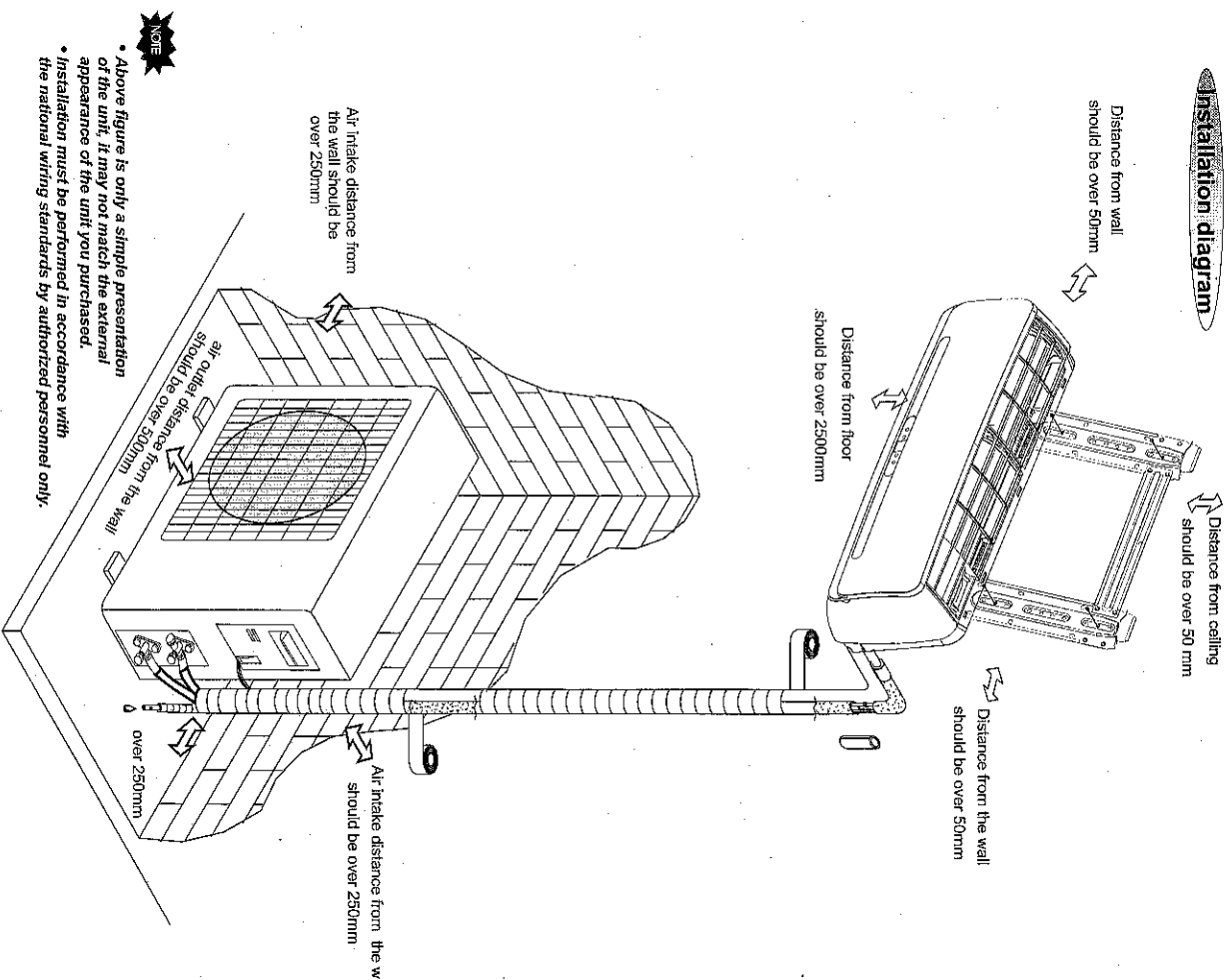
# Troubleshooting

The following cases may not always be a malfunction, please check it before asking for service.

Trouble	Analysis
Does not run	<ul style="list-style-type: none"> <li>• If the plug is not properly plugged.</li> <li>• If batteries in the remote controller exhausted.</li> <li>• If the protective device works to protect the appliance.</li> <li>• If the protector trip or fuse is blown.</li> </ul>
No cooling or heating air	<ul style="list-style-type: none"> <li>• Are the intakes and outlets of the air conditioner blocked?</li> <li>• Is the temperature set properly?</li> <li>• Is the air filter dirty?</li> </ul>
Ineffective control	<ul style="list-style-type: none"> <li>• If strong interference (from excessive static electricity discharge, power supply voltage abnormally/presents, operation will be abnormal. At this time, disconnect from the power supply and connect back 2-3 seconds later.</li> </ul>
Does not operate immediately	<ul style="list-style-type: none"> <li>• Changing mode during operation, 3 minutes will delay.</li> </ul>
Peculiar odor	<ul style="list-style-type: none"> <li>• This odor may come from another source such as furniture, cigarette etc, which is sucked in the unit and blows out with the air.</li> </ul>
A sound of flowing water	<ul style="list-style-type: none"> <li>• Caused by the flow of refrigerant in the air conditioner, not a trouble.</li> <li>• Defrosting sound in heating mode.</li> </ul>
Crackling sound is heard	<ul style="list-style-type: none"> <li>• The sound may be generated by the expansion or contraction of the front panel due to change of temperature.</li> </ul>
Spray mist from the outlet	<ul style="list-style-type: none"> <li>• Mist appears when the room air becomes very cold because of cool air discharged from indoor unit during <b>COOLING</b> or <b>DRY</b> operation mode.</li> </ul>
The compressor indicator (red) lights on constantly, and indoor fan stops.	<ul style="list-style-type: none"> <li>• The unit is shifting from heating mode to defrost. The indicator will light off within ten minutes and returns to heating mode.</li> </ul>

# Installation instructions

## Installation diagram

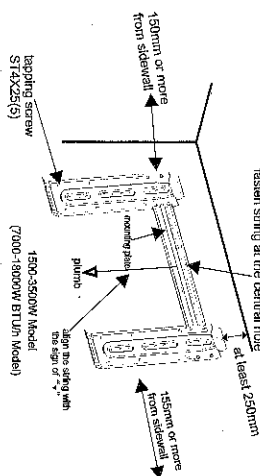


## Installation instructions

## Indoor unit installation

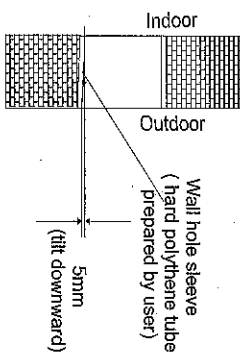
### 1. Installing the Mounting Plate

- Decide an installing location for the mounting plate according to the indoor unit location and piping direction.
- Keep the mounting plate horizontally with a horizontal ruler or dropping line.
- Drill holes of 32mm in depth on the wall for fixing the plate.
- Insert the plastic plugs to the hole, fix the mounting plate with tapping screws.
- Inspect if the mounting plate is well fixed. Then drill a hole for piping.
- Distance from floor should be over 2500mm



### Installation Diagram

- Note:** The shape of your mounting plate may be different from the one above, but installation method is similar.



Wall hole sleeve

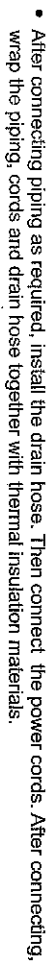
- 

- well hole from outside or put them through  
ere so as to connect to outdoor unit.  
with the piping direction.(as shown below

## Outdoor unit

- 
- Piping direction
- trough
- Unloading piece
- 1
- 2
- Note: W 1 or 2, saw off the unloading piece along the trough

**Note:** When installing the pipe at the direction 1 or 2, saw the corresponding unloading piece off the indoor unit base.



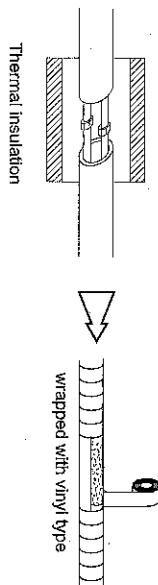


# Installation instructions



## Piping Joints Thermal Insulation:

Wrap the piping joints with thermal insulation materials and then wrap with a vinyl tape.



## Piping Thermal Insulation:

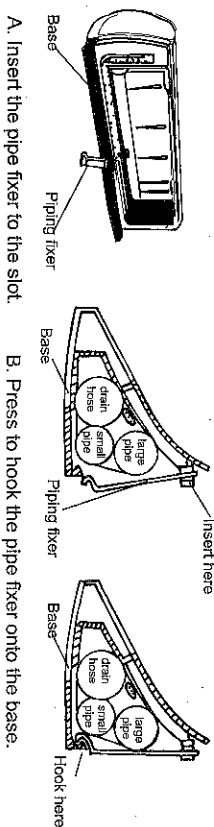
- Place the drain hose under the piping.
- Insulation material uses polythene foam over 6mm in thickness.

Note: Drain hose is prepared by user.

- Drain pipe should point downward for easy drain flow. Do not arrange the drain pipe twisted, sticking out or wave around, do not immerse the end of it in water.

If an extension drain hose is connected to the drain pipe, make sure to thermal insulated when passing along the indoor unit.

- When the piping is directed to the right, piping, power cord and drain pipe should be thermal insulated and fixed onto the back of the unit with a piping fixer.



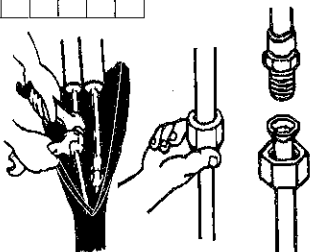
## Piping Connection:

- Connect indoor unit pipes with two wrenches. Pay special attention to the allowed torque as shown below to prevent the pipes, connectors and flare nuts from being deformed and damaged.

- Pre-tighten them with fingers at first, then use the wrenches.

Model	Pipe size	Torque	Nut width
7.9, 12, 18K	Liquid Side (φ 6 or 1/4 inch)	1.8kg.m	17mm
22, 24K	Liquid Side (φ 10 or 3/8 inch)	3.5kg.m	22mm
7.9K	Gas Side (φ 10 or 3/8 inch)	3.5kg.m	22mm
12, 18K	Gas Side (φ 12 or 1/2 inch)	5.5kg.m	24mm
22, 24K	Gas Side (φ 16 or 5/8 inch)	7.5kg.m	27mm

For T3 climate kind models, 18K and 24K Liquid Side is φ 6 (or 1/4 inch).



# Installation instructions

## 4. Connecting of the Cable

### Indoor Unit

Connect the power connecting cord to the indoor unit by connecting the wires to the terminals on the control board individually in accordance with the outdoor unit connection.

Note: For some models, it is necessary to remove the cabinet to connect to indoor unit terminal.

### Outdoor Unit

- Remove the access door from the unit by loosening the screw. Connect the wires to the terminals on the control board individually as the following.
- Secure the power connecting cord onto the control board with cable clamp.
- Reinstall the access door to the original position with the screw.

- Use a recognized circuit breaker for 24K model between the power source and the unit. A disconnecting device to adequately disconnect all supply lines must be fitted.

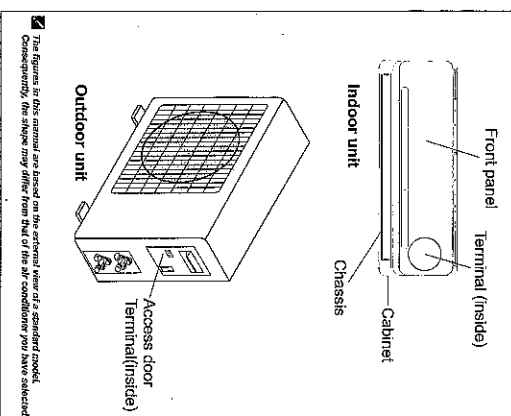
### Caution:

- Never fail to have an individual power circuit specifically for the air conditioner. As for the method of wiring, refer to the circuit diagram posted on the inside of the access door.
- Confirm that the cable thickness is as specified in the power source specification.
- (See the cable specification table below)
- Check the wires and make sure that they are all tightly fastened after cable connection.
- Be sure to install an earth leakage circuit breaker in wet or moist area.

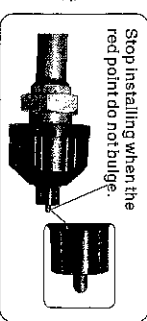
### Cable Specifications

Capacity (Btu/h)	Power cord		Power connecting cord		Power connecting cord (for heat pump)	
	Type	Normal cross-sectional area	Type	Normal cross-sectional area	Type	Normal cross-sectional area
7K, 9K	H05VV-F	1.0mm <sup>2</sup> X3	H07RN-F	1.0mm <sup>2</sup> X3	H07RN-F	0.75mm <sup>2</sup> X2
12K	H05VV-F	1.5mm <sup>2</sup> X3	H07RN-F	1.5mm <sup>2</sup> X3	H07RN-F	0.75mm <sup>2</sup> X2
18K	H07RN-F	2.5mm <sup>2</sup> X3	H07RN-F	2.5mm <sup>2</sup> X3	H07RN-F	0.75mm <sup>2</sup> X2
22K, 24K	H07RN-F	2.5mm <sup>2</sup> X3	H07RN-F	2.5mm <sup>2</sup> X3+0.75mm <sup>2</sup> X3 (heat pump) 2.5mm <sup>2</sup> X4 (cool only)	H07RN-F	0.75mm <sup>2</sup> X2

Note: Above cables shall be approved by HAR or SAA.



The figures in this manual are based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner you have selected.

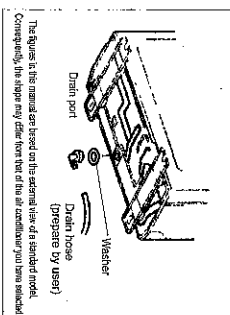


# Installation instructions

## Outdoor unit installation

### 1. Install Drain Port and Drain Hose (for heat-pump model only)

The condensate drains from the outdoor unit when the unit operates in heating mode. In order not to disturb your neighbor and protect the environment, install a drain port and a drain hose to direct the condensate water. Just install the drain port and rubber washer to the chassis of the outdoor unit, then connect a drain hose to the port as the right figure shown.



Fix with bolts and nuts tightly on a flat and strong floor.

If installed on the wall or roof, make sure to fix the supporter well to prevent it from shaking due to serious vibration or strong wind.

### 2. Install and Fix Outdoor Unit

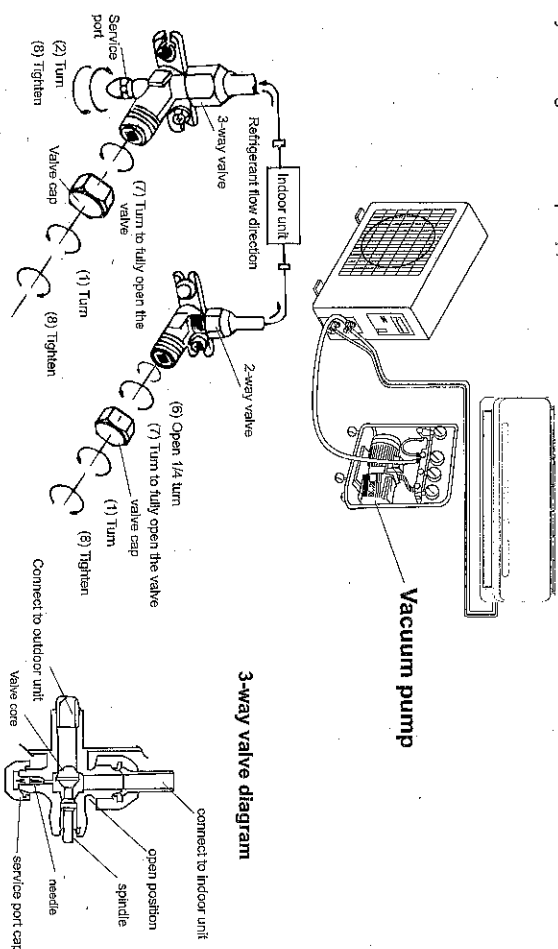
Remove the valve caps from the 2-way and 3-way valve.

Connect the pipes to the 2-way and 3-way valves separately according to the required torque.

### 3. Outdoor Unit Cable Connection (see previous page)

## Air purging

The air which contains moisture remaining in the refrigeration cycle may cause a malfunction on the compressor. After connecting the indoor and outdoor units, evacuate air and moisture from refrigerant cycle using a vacuum pump, as shown below.



Note: To protect the environment, be sure not to discharge the refrigerant to the air directly.

# Installation instructions

## How to Purge Air Tubes:

- (1). Unscrew and remove caps from 2 and 3-way valves.
- (2). Unscrew and remove cap from service valve.
- (3). Connect vacuum pump flexible hose to the service valve.
- (4). Start vacuum pump for 10-15 minutes until reaching a vacuum of 10 mm Hg absolute.
- (5). With vacuum pump still running close the low pressure knob on vacuum pump manifold. Then stop vacuum pump.
- (6). Open 2-way valve 1/4 turn then close it after 10 seconds. Check tightness of all joints using liquid soap or an electronic leak detector.
- (7). Turn 2 and 3-way valves stem to fully the valves. Disconnect vacuum pump flexible hose.
- (8). Replace and tighten all valve caps.



Please read this manual before installing and using it.

- Do not let air enter the refrigeration system or discharge refrigerant when moving the air conditioner.
- Testing run the air conditioner after finishing installation, and record details of operation.
- Type of fuse used on indoor unit controller for 7K, 9K, 12K is 50T, with rating 3.15 A, T, 250V. For 18K, 22K, 24K models use 3.15A, T, 250V.
- The fuse for the whole unit is to be provided by the user according to the current at maximum power input or use other over-current protective device instead.
- Accessibility to the plug must be guaranteed even after the installation of the appliance to disconnect it in case of need. If not possible, connect appliance to a double-pole switching device with contact separation of at least 3 mm placed in an accessible position even after installation.

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