

## **Health & Safety, Use & Care, Installation Guide and Online Warranty Registration Information**

產品安全指引、使用說明、安裝指南及  
網上登記保養資料

Model 產品型號：AWV07300R / AWV07301R  
AWV09300R / AWV09301R  
AWV12300R / AWV12301R  
AWV18300R / AWV18301R



**[www.whirlpool.com.hk](http://www.whirlpool.com.hk)**

# Dear User,

Thank you for choosing Whirlpool air conditioner. Our design is based on the best efficiency and the lowest noise operation and it can keep the room comfortable. Please read this operating manual carefully before operating the unit and keep it for consultation.

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The descriptions in this user manual may differ from the actual unit. Please refer to the actual unit for details.

Please read this operating manual carefully before operating the unit.



Appliance filled with mildly flammable refrigerant R32. If the refrigerant is leaked and exposed to external ignition source, there is a risk of fire.



Before use the appliance, read the owner's manual first.



Before install the appliance, read the installation manual first.



Before repair the appliance, read the service manual first.

## Introduction

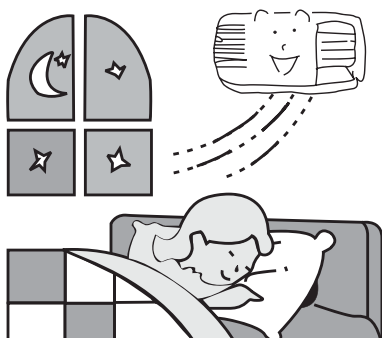


Whirlpool's window air-conditioner adopts the Zen Inverter Technology, the compressor works in an automatic way to stabilize the room temperature at a comfortable level. In addition, the operation of inverter compressor will not stop and start repeatedly, which generates a low noise level, providing a quiet and comfortable environment to the end users.

Featuring the advanced R32 refrigerant, our air-conditioner not only provides superior cooling and energy efficiency but also significantly reduces environmental impact. Stay cool, save energy, and go green with our innovative R32 window air conditioner!

### Cooling in summer

In hot summer, air conditioner can cool down room air by transferring heat out.



### Dehumidifying in rainy or humid season

Without reducing room temperature, air conditioner can dehumidify and make room air dry and comfortable.



# Safety Precaution

- Read the safety precaution carefully before using this appliance.
- Incorrect operation will cause injuries and damage, please pay special attention to below sign:

## Explanation of Symbols



**DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



**WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



**CAUTION**

Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

**NOTICE**

Indicates important but not hazard-related information, used to indicate risk of property damage.



Indicates a hazard that would be assigned a signal word **WARNING** or **CAUTION**.

- When using the appliances, should always follow this instruction to reduce the risk of fire, electric shock, and injury to person.
- Please keep this manual. If you deliver the appliance to other users, do handover this manual together.

## R32 Refrigerant



**Attention:** This product unit contains mildly flammable refrigerant R32. Improper handling or treatment of the unit can result in severe damage to people and property. For detailed information about this refrigerant, please refer to "The Refrigerant".

- To operate the air conditioning unit, a specialized refrigerant circulates through the system. This refrigerant is purified fluoride R32. Although it is flammable and odorless, its flammability is very low, and it can only ignite in the presence of an open flame. Under certain conditions, it could potentially cause an explosion.
- Compared to conventional refrigerants, R32 is environmentally friendly and does not harm the ozone layer. It also has a lower impact on the greenhouse effect. With excellent thermodynamic properties, R32 enhances energy efficiency, which means that units require less frequent recharging.

### **WARNING:**

- Do not use any methods to accelerate defrosting or cleaning other than those recommended by the manufacturer. Failure to comply may result in damage. If repairs are needed, contact your nearest authorized Service Centre immediately.
- The appliance must be stored in a room free from continuously operating ignition sources, such as open flames, active gas appliances, or operating electric heaters.
- Do not pierce or burn the appliance.
- The appliance contains mildly flammable refrigerant R32. For repairs, strictly follow the manufacturer's instructions.
- Be aware that refrigerants may not contain an odour.

## R32 Refrigerant

- Read specialist's manual on page 25 to 29.





### According to EN60335-1

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.

## Installation Precaution



- The appliance must be fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III conditions, and these means must be incorporated in the fixed wiring in accordance with the wiring rules.
- The air conditioner must be installed by professional or qualified persons.
- The appliance shall be installed in accordance with national wiring regulations.
- The appliance shall be connected to electric supply with safety grounding. The appliance must be connected to an electrical leakage protection switch with sufficient capacity.


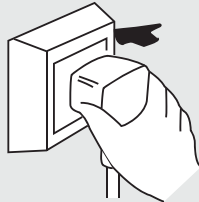


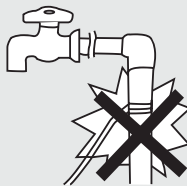
Operation Precaution	
 <b>WARNING</b>	<ul style="list-style-type: none"> <li>• This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.</li> <li>• Children should be supervised to ensure that they do not play with the appliance.</li> <li>• If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.</li> <li>• Do not use extension cord , otherwise it may cause fire hazard.</li> <li>• Do not pull the power supply cord to remove it from the socket. Do not twist or press the power supply cord, and make sure it is not broken.</li> <li>• Do not touch the power plug, circuit breaker and emergency button when your hands are wet.</li> <li>• Do not use flammable detergent to clean the appliance , such as gasoline, to avoid fire hazard.</li> <li>• Need two or more people to move and install the appliance to avoid excessive weight hazard.</li> </ul>
 <b>WARNING</b>	<ul style="list-style-type: none"> <li>• Disconnect power plug before cleaning , maintenance and servicing.</li> <li>• Disconnect power plug from power supply when the appliance is not in use for a long period of time.</li> <li>• Disconnect power plug when there is strange smell or abnormal noise from the appliance, and then contact service agency.</li> <li>• Disconnect the air conditioner from the power supply if it is to be left unused for a long period of time or during a thunder / lighting storm.</li> <li>• Always turn off the air conditioner by remote control first. Do not use the power supply circuit breaker or pull off the plug to turn it off. Do not use flammable detergent to clean the appliance , such as gasoline, to avoid fire hazard.</li> <li>• Need two or more people to move and install the appliance to avoid excessive weight hazard.</li> </ul>

# Operating Condition

- Please operate air conditioner in the correct condition as following.

COOL mode operation	DRY mode operation
<p>Outdoor temperature should be in range of 18°C to 43°C, otherwise it is possible for air conditioner to breakdown.</p> <p>Room humidity should be lower than 90%. Otherwise, it is possible for air conditioner to dew at air conditioner surface and even drop water after running for so much time. And this is a normal phenomenon.</p>	<p>Outdoor temperature should be in range of 18°C to 43°C, otherwise it is possible for air conditioner to breakdown.</p>

## Power Requirement

	<ul style="list-style-type: none"><li>* Make sure the voltage is 220V~240V, the ground must be connected.</li><li>* If the voltage is too high, it may damage the electric components.</li><li>* If the voltage is too low, the compressor will vibrate violently which damage the refrigerant system and easily cause the compressor and electric components not work.</li></ul>	
	<ul style="list-style-type: none"><li>* Special socket must be used. Furthermore, the socket and wiring must conform to the wiring regulations. And the earthing method must be reliable.</li><li>* In fixed circuit, there must be electricity leakage protection switch of enough power capacity and air switch with enough space.</li></ul>	
<b>Earth wire</b>	To ensure the reliable earthing, please do not connect earth wire to the following places:	
	<p>Water pipe</p> 	

# Installation Instruction

## Installation precaution:

Window type air conditioner is so valuable and the improper installation of it will cause a lot of damage! Please associate the professional technician to install the unit and don't install it by yourself.



## Location:

- The condensation water must be drained away conveniently.
- Install air conditioner unit far away from TV set or radio etc. to avoid disturbing video or voice.
- In salt-rich and coastal area or place where is near thermal springs and polluted by sulphurous gas, or other special areas, please contact the seller before use.
- Avoid a place where is possible for inflammable gas to leak out.
- It's not allowed to be installed on the unstable or motive base structure (such as truck) or in the corrosive environment (such as chemical factory).
- Avoid other heat sources or direct sunlight.
- Avoid a place where is easy for children to touch.
- Don't use the unit in the immediate surroundings of a laundry, a bath, a shower or a swimming pool.
- For window type air conditioner with remote control, install in a location where is strong elec-tromagnetic disturbance, you should contact the seller in advance to avoid the malfunction in use.
- When installing an R32 air conditioner, ensure there is at least a 2-meter distance from other gas appliances or electric heaters to avoid any dangers from refrigerant leakage.

## How to install:

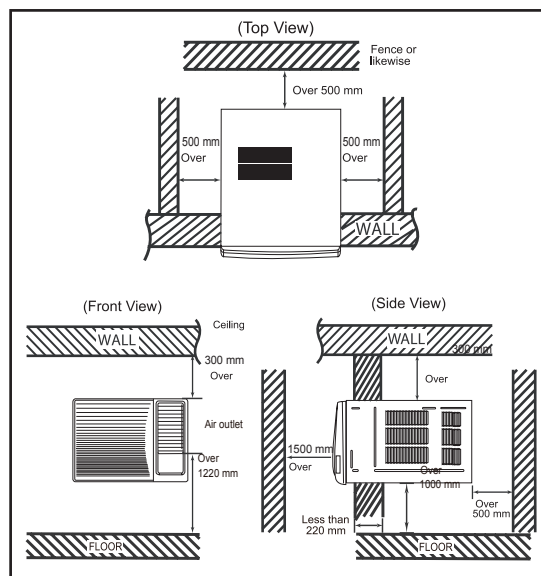
- Choose a location where there are no any obstacle surrounding the unit, and the plug is accessible.
- Prepare the installation hole slightly bigger than unit size.
- Choose the installation space according to the following diagram.

## Product Dimension:

Model	W	H	D
7K	450	350	640
9K	450	350	640
12K	560	375	708
18K	660	428	800

Unit:mm

The distance between the air conditioner and the around obstacles should meet the requirement as below: over 300mm(upper side), over 500mm (left side), over 500mm (right side), over 1500mm (front side) and over 500mm (rear side).



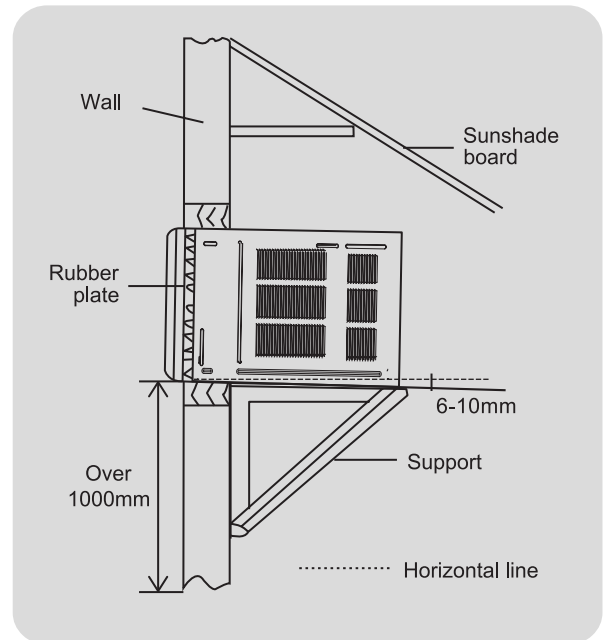


## Installation procedure:

- 1) Remove the sticker from the front panel.
- 2) Put the unit into the installation hole.
  - When installing the unit, it should be slanted down to the back to avoid the enlargement of noise or vibration. (Slant between 6-10mm.) (Shown at right figure.)
  - The installation place should be strong enough to avoid the enlargement of noise or vibration.
- 3) Fill up sews in the cabinet with sponge or foam.

## Installation assistance:

- Use iron support  
The installation hole should be strong enough to support the air conditioner. If it cannot, iron support has to be used outdoors.  
Iron support should be fixed on the building (Shown at right figure.)
- Use sunshade board  
Air conditioner should avoid anything to be dropped into it and avoid direct sunshine. If there is no cover on it, you should contact the seller for installing the sunshade board. When installing the sunshade board, don't let it block the air inlet at the side grille.



# Installation Instruction

## Drain water (Style 1)

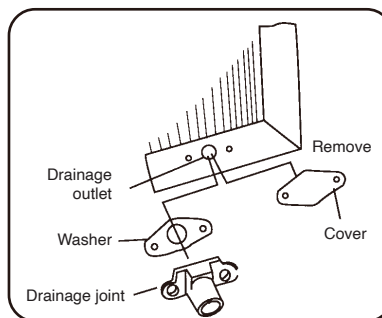
To get the maximum cooling efficiency, the air conditioner is designed to splash the condensation water on the condenser coil.

If the splashing sound annoys you, you can provide an outside drain by using the following procedures, which may however cause a small loss of performance.

1. There is a drainage outlet at the back of the unit.
2. Remove cover from the drainage outlet, and then connect drainage joint to it with screw.
3. Connect the drain hose to the outlet.

Note:

Drain hose or tubing can be purchased locally to satisfy your particular needs.

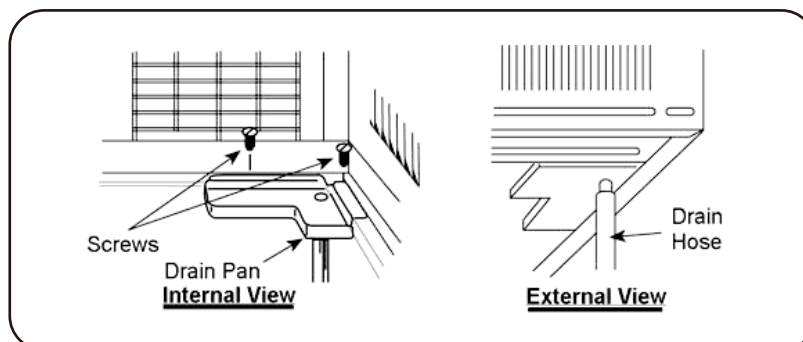


## Drain water (Style 2)

To get the maximum cooling efficiency, the air conditioner is designed to splash the condensation water on the condenser coil. Please install the drainage box when installing the air conditioner.

To the cooling only unit, If the splashing sound annoys you, you can provide an outside drain by using the following procedures, which may however cause a small loss of performance.

1. Slide out the chassis from the cabinet.
2. Remove the rubber plug from the body base plate.
3. Install the drain pan to the corner of the cabinet with 2 screws.
4. Connect the drain hose to the outlet on the drain pan bottom.
5. Ensure the drainage work well, pour 2-3 cup of water into the drainage system.
6. Slide the chassis into its original place in the cabinet.



Note:

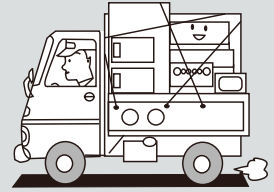
- Drain pan and drain hose must be installed before using reverse cycle models.
- Drain hose or tubing can be purchased locally to satisfy your particular needs.

## Notes For Installation

### Remove

Before removing air conditioner to the other place, you should contact the seller firstly.

Then it must be done under the direction of the professional technician.



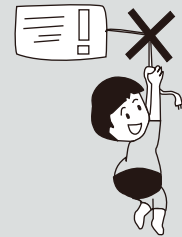
### Noise

- Install in a location where is firm enough to avoid the enlargement of noise and vibration.
- Don't put anything in front of the outlet of the unit to avoid increasing noise.
- Be sure that hot air or noise will not inconvenience neighbors.
- Please contact the seller as soon as there is strange noise during operation.
- Please use the safety support.



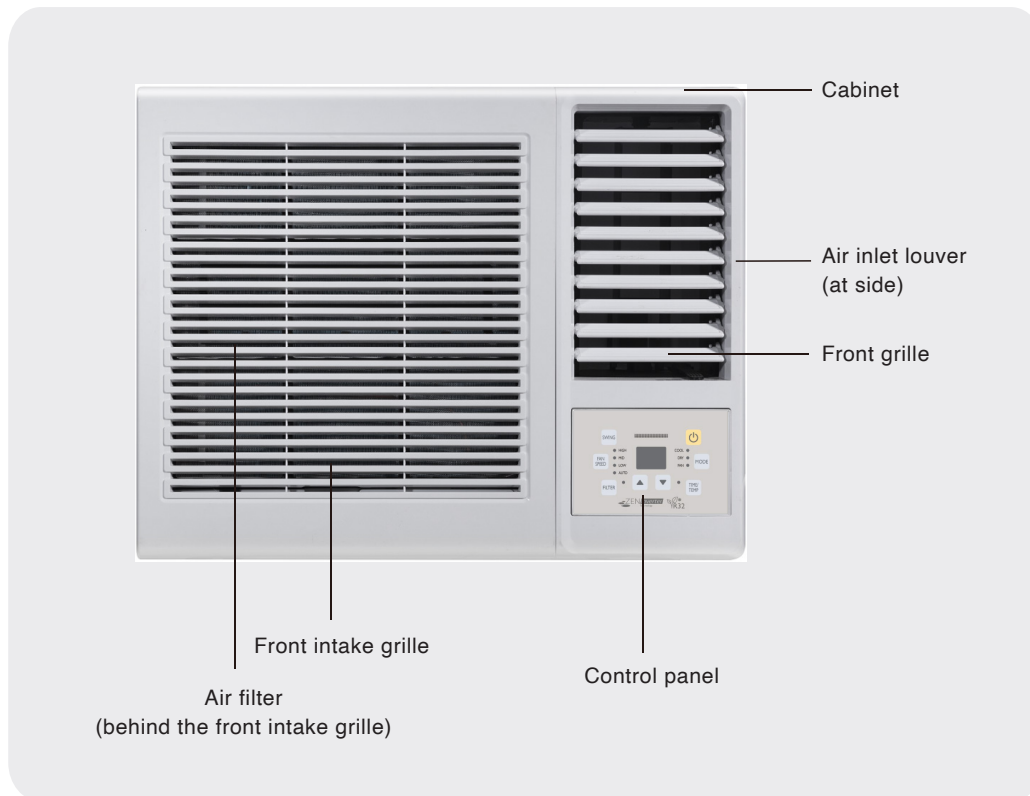
### Electric wiring

- Must connect with ground reliably.
- The exclusive circuit must be used. But removable socket can't be used because poor contact of it can cause over heat or fire.
- Don't pull the power cord strongly.
- In fixed circuit, there must be electricity leakage protection switch and leakage current is less than 30mA.
- Connecting method between air conditioners and power cord and interconnecting method of each individual element with one another should accord with wiring diagram on the unit.
- The air conditioner should be installed in accordance with national wiring regulations. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- Air switch (thermal-magnetic breaker) should be installed in the circuit.
- If the supply cord is damaged, it must be replaced by the manufacturer or your dealer or a qualified person to avoid a hazard.
- All the electrical work must be done according to the local wiring regulations.



# Parts Identification & Operation

## Product Outlook

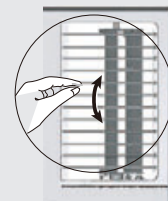


Note: Panel outlook picture, just for reference, please take the real unit as standard.

## Air Direction Adjustment

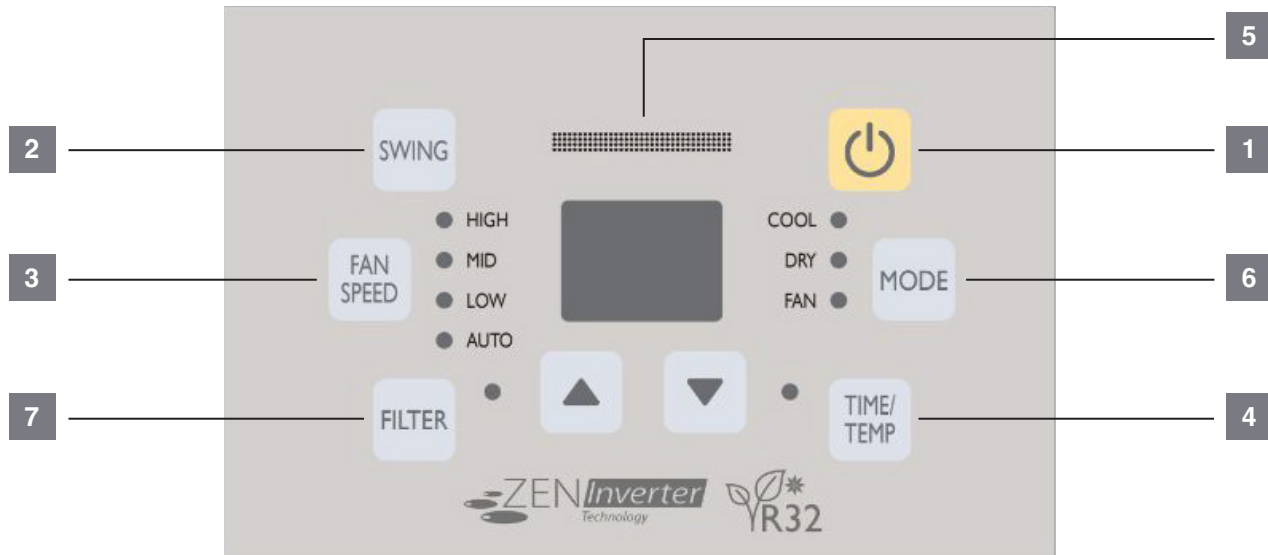
### Vertical airflow direction vane

The vertical airflow direction vane is controlled by positioning the vane to discharge the air upwards, downwards or straight out.



## Control Panel

### Product Outlook



#### 1 Power button

Press this button to turn on the unit. Press this button again to turn off the unit.

#### 2 Swing button

Press this button to activate the auto swing function.

#### 3 Fan speed button

Press this button to select fan speed : HIGH, MID, LOW, AUTO.

#### 4 Time / Temp button

- Press the ▲ button to increase the set temperature and press the ▼ button to decrease the set temperature. The temperature adjustment range is 16-30°C.
- Press the ▲ button together with the TIME/TEMP button to increase the time in 1-hour increments, and press the ▼ button together with the TIME/TEMP button to decrease it in 1-hour decrements. The time adjustment range is 0-24 hours.

#### 5 Signal receivers

Signal receiver of remote control.

#### 6 Mode button

Press this button to select operation mode: COOL, DRY, FAN.

#### 7 Filter

Reminder to clean the Air Filter. The LED light will illuminate after 250 hours of operation. To reset after cleaning the filter, press the "FILTER" button and the light will turn off.

# Parts Identification & Operation

## Remote Control



### 1 Power button

Press this button to start or stop the operation.

### 2 Mode button

Press this button to select the operation mode (6TH SENSE/ COOL/ DRY/ FAN)

3 - : Press this button to decrease the temperature setting.

4 + : Press this button to increase the temperature setting.

### 5 Fan speed button

Press this button to set the fan speed.

### 6 Swing button

Press this button to set the swing angle.

### 7 Sleep

Press this button to enter SLEEP mode.

### 8 Timer

Press this button to set the auto-on/auto-off timer.

### Note:

- Be sure that there are no obstructions between the receiver and the remote controller.
- Don't drop or throw the remote controller.
- Avoid letting any liquid enter the remote controller, and do not place the remote controller directly under sunlight or in any very hot location.

## Introduction for buttons on remote controller

### 1 Power button

Press this button to turn on the unit. Press this button again to turn off the unit.

### 2 Mode button

Each time you press the button, a mode is selected in a sequence that goes from 6th sense, COOL, DRY, FAN, as the following:



\* When it turns to 6th sense, display screen will show the words "Auto", and the temperature will set at 25°C.

\* Dry mode will operate at low fan speed level.

### 3 -

Press this button to decrease the set temperature. Hold it for more than 2 seconds to rapidly decrease the set temperature. Under 6th sense mode, the set temperature is not adjustable.

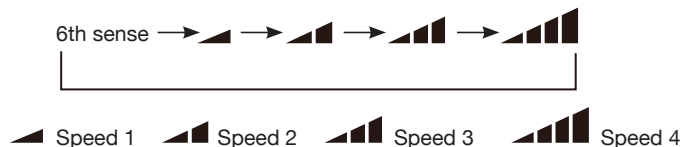
### 4 +

Press this button to increase the set temperature. Hold it for more than 2 seconds to rapidly increase the set temperature. Under 6th sense mode, the set temperature is not adjustable.

### 5 Fan speed button

This button is used for setting the Fan Speed in the sequence that goes from 6th sense, Speed 1, Speed 2, Speed 3, Speed 4, then back to Auto.

If it is not a specific model, the speed 1 or speed 2 refer to low cool fan speed, while speed 3 or speed 4 refer to high cool fan speed.



### 6 Swing button

Press this key to activate or deactivate the swing function.

### 7 Sleep

Press this button to enter SLEEP mode. Press it again to cancel this function.

This function is available in COOL or DRY mode to maintain a comfortable temperature. During SLEEP mode, the set temperature will increase by 1°C after 1 hour, and then by an additional 1°C after 2 hours, before stabilizing.

### 8 Timer

Press this button to initiate auto-on/auto-off timer. To cancel auto-timer program, press this button twice.

### 9 Key Lock

Press "+" and "-" buttons simultaneously to lock or unlock the keypad.

# Parts Identification & Operation

## Note:

- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.
- When power is connected(stand by condition), you can operate the air conditioner through the remote controller.
- When unit is on, each time you press the button on remote controller, the sending signal icon “ ” on the display of remote controller will blink once. If the air conditioner gives out a beep sound, it means the signal has been sent.
- When unit is off, set temperature will be displayed on the remote controller (If the light of indoor unit display is turned on, the corresponding icon will be displayed); When unit is on, it will display the icon of the on-going function.

## Replacing batteries in remote controller

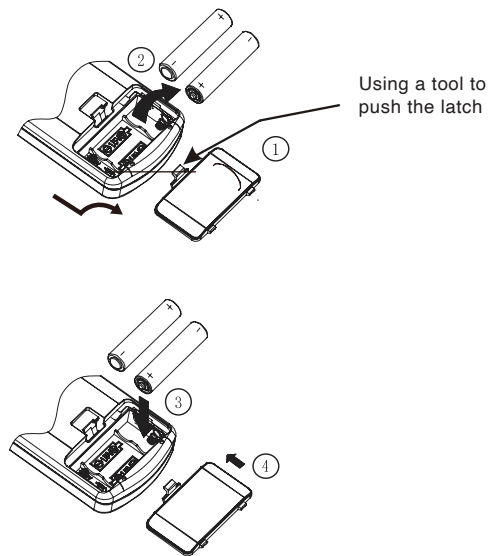
1.Remove the cover from the back of the remote control.To avoid small parts choking hazard, it is suggested to open the cover by tools (e.g. flat screwdriver).

- Insert the screw tap at the gap of latch.
- Slightly push the latch and pry the cover up to remove it.

2.Take out old batteries.

3.insert the two batteries (Two AAA dry - cell batteries).

4.Re-attach the cover. (Shown as diagram)

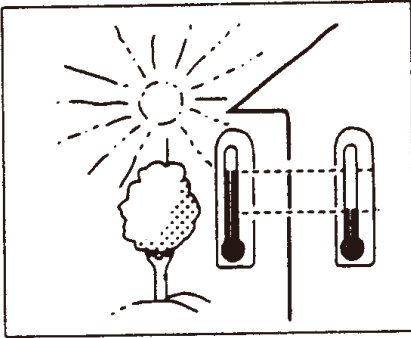


## Note:

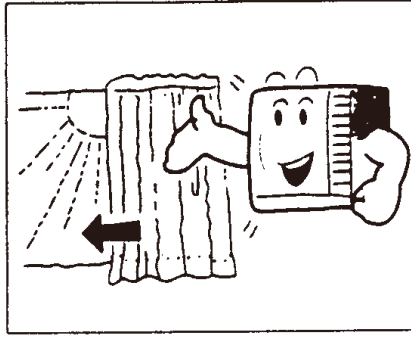
- Don't mix the new and worn or different types of batteries.
- Remove batteries when the remote controller is not in use for a long time.
- The remote controller should be placed about 1m or more away from the TV or any other electric appliances.
- As the signal will be interfered in the room with electronic fluorescent lamp, conversion fluorescent lamp or wireless phone, please get closer to the air conditioner when using the remote controller.



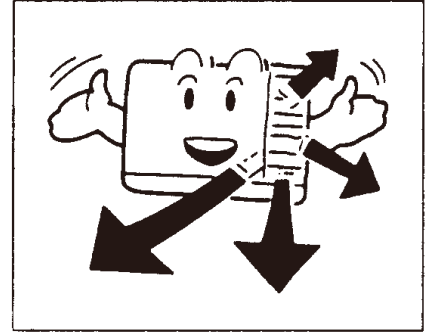
## Operation for comfort and economy



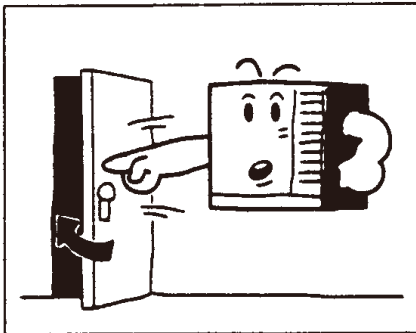
Do not overcool the room temperature. This is not good for health and waste electricity.



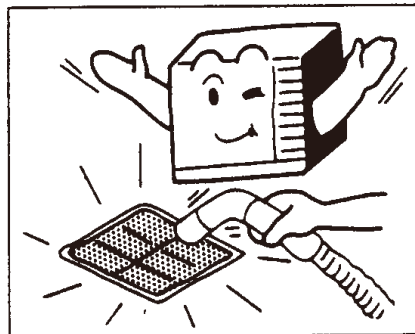
Keep blind or curtains closed. Do not let sunshine enter the room directly when the air condition is in operation.



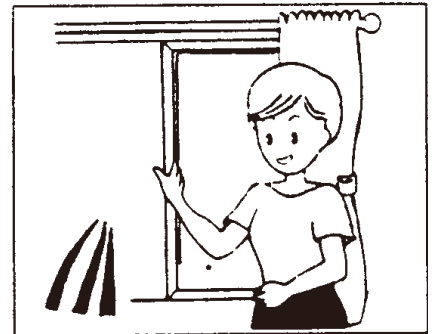
Keep the room temp. uniform. Adjust the vertical and horizontal airflow direction to ensure a uniform temperature in the room.  
Air can't be discharged to the direction of air-in.



Make sure that the doors and windows are tightly closed. Avoid opening doors and windows as much as possible to keep air conditioning in the room.



Clean the air filter regularly. Blockages in the air filter reduce dehumidifying effects. Clean the air filter at least once every two weeks.



Ventilate the room occasionally. Since windows are kept closed, it is a good idea to open them and ventilate the room now and then. When starting the unit, curtains or windows should be closed to prevent the heat/cool leakage.

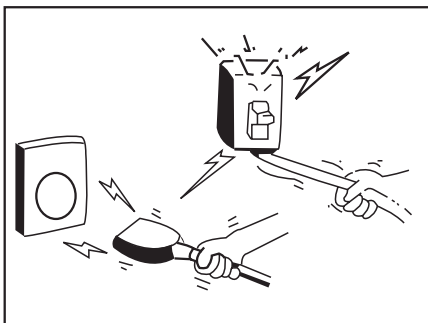
### Note:

- In silent environment, during operation to be started or stopped, there may be rubbing noise to be generated from fan guide and housing;
- During refrigeration cycle, the refrigerant flowing sound may be generated occasionally. This phenomena is normal..
- There is condensed water to be formed at evaporator and accumulated at the bottom tray. The water will be splashed to condenser through condenser fan blade. "Splash" sound may be created. This phenomena is normal.

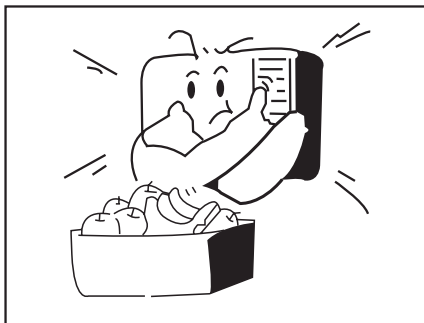
# Caution

## Operation for safety and health

- 1) The plug must be accessible after the appliance is positioned.
- 2) Do not use this appliance in the laundry room.
- 3) If the power cord is damaged, it must be replaced by the manufacture or its service agent in void of hazard.



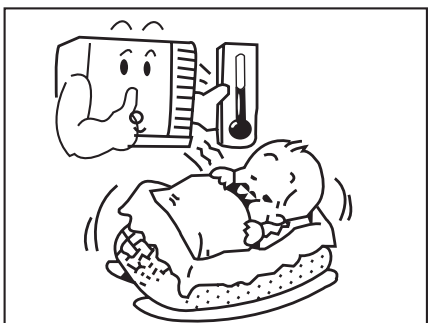
Do not pull out the power cord. Damage to the cord may result in serious electric shocks.



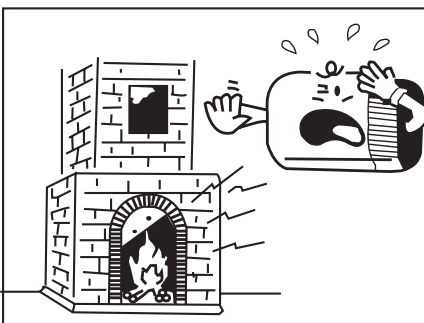
Do not use the air conditioner for other purposes except for cooling the room.  
Do not use the air conditioner for other purposes such as dry-ing clothes, preserving foods, or cultivating vegetables.



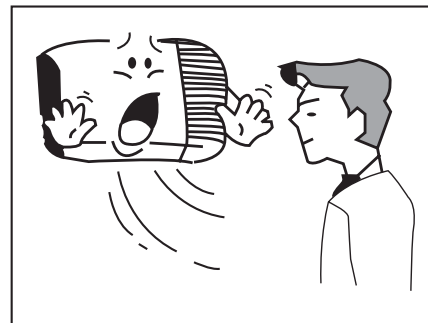
Do not block the air intake and outlet vents.  
This causes lowered performance and irregular operation. Do not insert sticks or other objects into these vents as it is dangerous to touch the electric components and the fan.



Do not overcool the room temperature. This is not good for health and waste electricity.

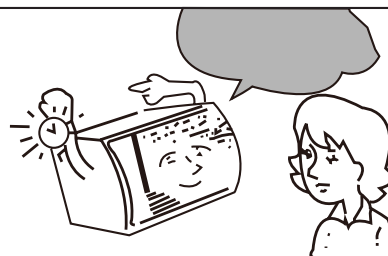


Keep blind or curtains closed  
Do not let sunshine enter the room directly when the air condition is in operation.



Keep the room temp. uniform. Adjust the vertical and horizontal airflow direction to ensure a uniform temperature in the room.  
Air can't be discharged to the direction of air-in.

Always wait at least 3 minutes before switching the air condition on again after you have switched it off during cooling. The appliance should not be used by children without supervision.

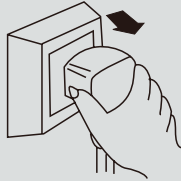


- Please note that the unit contains mildly flammable refrigerant R32. Mishandling it can cause serious harm to people, the appliance and the damage to property. You can find more details about this refrigerant in the 'R32 Refrigerant' section on page 4.
- Appliances should be installed, used, and stored in a room with a floor area larger than a specific size. Please check the table in the 'Safety Operation of Flammable Refrigerant' section for the required room size.

## Cleaning unit

1. Cut power off before cleaning.

Plug out only after air conditioner stops at all.



2. Use soft cloth when cleaning cabinet.  
If the cabinet is very dirty, dip cloth into warm water below 40°C, dry the cloth and then rub off the dirt.



Dry the cloth by hand s before cleaning.

3. Don't use gas, benzene, solvent, wash, chemical solvent, etc. for cleaning.



4. Do not splash water directly into the unit, in which there are micro-computer and circuit plate, they must not be drenched with water.

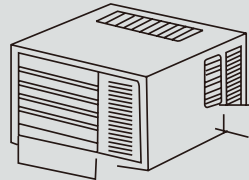


### Air filter

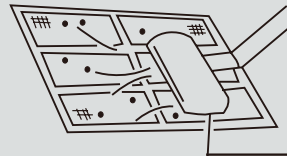
The air filter behind the intake grille should be washed at least once every two weeks or as often as it needs cleaning.

How to clean the air filter:

1. To remove the air intake grille, grasp the tab on the filter and pull to take out.

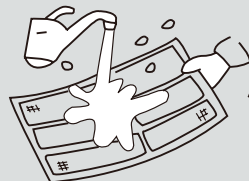


2. Vacuum the filter on the dusty side to remove light dust.



Vacuum cleaner

3. Wash the filter, cleaner side up under gently flowing water to wash out accumulated dust and lint.



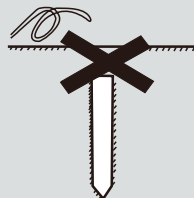
4. If the filter is very dirty, use a mild household detergent in the wash water.



Let the filter dry thoroughly before reinstalling it. If necessary, please ask the professional personnel to clean it.

- \* Check earth wire

Is it broken or loose?



- \* Check if air inlet and outlet of the unit are blocked or not.

Air lock could result in bad efficiency.


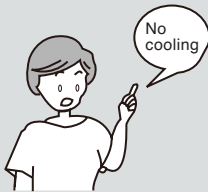




### Note:

Always turn off the air conditioner and main power supply before cleaning to ensure safety.

# Trouble Shooting Guide

Please check the following items before asking for repair, it saves your time and money.

Fault phenomenon	Troubleshooting
<p>Air conditioner does not operate at all.</p> 	<ul style="list-style-type: none"> <li>• Is there a power failure?</li> <li>• Is the plug out?</li> <li>• Is power fuse or switch off?</li> <li>• Is the power voltage too high or too low?</li> </ul>
<p>Cool efficiency is not good.</p> 	<ul style="list-style-type: none"> <li>• Is air inlet or outlet locking?</li> <li>• Is there any other heat source in room?</li> <li>• Are air filters very dirty?</li> <li>• Is indoor fan speed set at LOW?</li> <li>• Maybe the room is too hot when the unit is started, please cool down the room after a period of time.</li> <li>• Is there direct sunlight?</li> </ul>
<p>Foggy air flows out.</p> 	<ul style="list-style-type: none"> <li>• At COOL mode operation, sometimes there is foggy air flowing out of the unit, this is because the room humid air has been cooling rapidly.</li> <li>• The unit is normal while the indoor outlet is sending out some odor, because the inlet air may be mixed with the smell of furniture and smoke.</li> </ul>
<p>The air conditioner operation is noisy.</p> 	<ul style="list-style-type: none"> <li>• For a noise that sounds like water flowing: This is the sound of freon flowing inside the air conditioner unit.</li> <li>• For a noise that sounds like a shower: This is the sound of the dehumidifying water being processed inside the air conditioner unit.</li> </ul>
<p>It seems that condensation is leaking from air conditioner.</p>	<ul style="list-style-type: none"> <li>• Condensation occurs when the airflow from the air conditioner cools the warm room air.</li> </ul>
<p>Air conditioner does not operate for about 3minutes when restart.</p>	<ul style="list-style-type: none"> <li>• This is to protect the mechanism.</li> <li>• Wait about three minutes and operation will begin.</li> </ul>

Immediately stop all operations and unplug the device, please contact your dealer in the following situations.

- Operation starts or stops abnormally.
- Power fuse or switch often breaks.
- Carelessly splash water or something into air conditioner.
- Electrical lines are much hot or lines cover breaks.
- Other strange situations.



## Scrapping Notice

### Scrapping Packaging

1. The packaging can be 100% recycled as confirmed by the recycling symbol . The various parts of the packaging must not be dispersed in the environment, but must be scrapped in line with local authority regulations.
2. For more detailed information on handling and recycling of this product and its' packaging, contact your local authorities who deal with the separate collection of rubbish or the shop where you bought the appliance.

### Scrapping Appliance

3. This appliance has been made of recyclable or re-usable material. Scrapping must be carried out in compliance with local waste disposal regulations. Before scrapping it, make sure to cut off the mains cord so that the appliance cannot be re-used.



4. The symbol on the product or on the documents accompanying the product indicates that this appliance should not be treated as household waste, but must be given to the appropriate local gathering place where electric and electronic appliances are stored and recycled.
5. The batteries in remote controller must be recycled or disposed of properly. Please discard the batteries as sorted municipal waste at the accessible collection point. (remark : only for product with remote controllers)

## Safety Operation of Flammable Refrigerant

### Qualification Requirements for Installation and Maintenance Personnel

- 1) All personnel working on the refrigeration system must hold valid certification from an authorized organization and possess industry-recognized qualifications for handling refrigerant systems. If maintenance or repairs require additional technicians, they must be supervised by someone qualified to work with flammable refrigerants.
- 2) Repairs must be carried out using the methods recommended by the equipment manufacturer.

### Installation Notes

- 1) The air conditioner must not be used in a room with an open flame (such as a fire source, active gas appliance, or operating heater).
- 2) The air conditioner must be installed in a room that is larger than the minimum room size requirement. The minimum room size is indicated in the table below.
- 3) A leak test is required after installation.

### Minimum Room Size

R32 Refrigerant Charge Amount (kg)	≤1.842	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Minimum Room Size (m <sup>2</sup> )	/	11.2	12.4	13.6	15	16.3	17.8	19.3

# Safety Operation and Maintenance Notes

## Maintenance Notes

- 1) Ensure that the maintenance area of the room size meet the requirements. The appliance must only be operated in rooms that comply with the requirements.
- 2) Check whether the maintenance area is well-ventilated. Continuous ventilation must be maintained throughout the operation process.
- 3) Check for any fire sources or potential fire hazards in the maintenance area.
- 4) Check that the appliance marking is in good conditions. Replace the vague or damaged warning mark.

## Welding

- 1) If you need to cut or weld the refrigerant system pipes during maintenance, please follow these steps a. Shut down the unit and disconnect the power supply
  - b. Remove the refrigerant
  - c. Perform vacuuming
  - d. Clean it with nitrogen gas (N<sub>2</sub>)
  - e. Proceed with cutting or welding
  - f. Transport the unit to the service location for welding.
- 2) The refrigerant should be recycled into a specialized storage tank.
- 3) Ensure that there is no open flame near the vacuum pump outlet and that the area is well-ventilated.

## Filling the refrigerant

- 1) Use refrigerant filling equipment designed specifically for R32. Ensure that different types of refrigerants do not mix to prevent contamination.
- 2) The refrigerant tank should be kept upright during the filling process.
- 3) Attach the label to the system after filling is completed (or not completed).
- 4) Do not overfill.
- 5) After filling is complete, perform a leak detection before running any tests. Conduct another leak detection when the system is removed.

## Safety Instructions for Transportation and Storage

- 1) Use a flammable gas detector to check for gas leaks before unloading and opening the container.
- 2) Keep away from fire sources and avoid smoking.
- 3) Follow local rules and regulations.



## Checks for Installations with Flammable Refrigerants

- **Charge Size:** Ensure the refrigerant charge matches the room size where the refrigerant-containing parts are installed.
- **Ventilation:** Verify that ventilation machinery and outlets are functioning properly and are not blocked.
- **Indirect Refrigerant Circuit:** If using an indirect refrigerant circuit, check the secondary circuit for refrigerant presence.
- **Markings:** Ensure equipment markings are clear and legible. Replace or correct any that are not visible.
- **Pipe and Component Placement:** Install refrigeration pipes and components in areas protected from corrosive substances. If exposure to corrosion is unavoidable, use corrosion-resistant materials or provide adequate protection.

## Repair and Maintenance of Electrical Components

- **Safety Checks:** Perform initial safety checks and inspect components during repair and maintenance.
- **Fault Handling:** If a fault threatens safety, disconnect the electrical supply until the issue is resolved.
- **Temporary Solutions:** If immediate repair isn't possible but operation must continue, implement a suitable temporary solution.
- **Reporting:** Inform the equipment owner of the fault and temporary measures so all relevant parties are aware.

## Initial Safety Checks

- **Capacitors:** Make sure capacitors are safely discharged to prevent sparks.
- **Electrical Components:** Ensure no live electrical parts or wires are exposed while charging, recovering, or purging the system.
- **Earth Bonding:** Verify that earth bonding is continuous.

## Area Checks

- **Safety Checks:** Before working on systems with flammable refrigerants, perform safety checks to reduce the risk of ignition.
- **Standards:** For refrigerating system repairs, complete the checks specified in IEC60335-2-40:2018 Annex DD.4.3 to DD.4.7.

## Work Procedure

- **Controlled Procedure:** Carry out work in a way that reduces the risk of flammable gas or vapor.

## General Work Area

- **Instructions:** Inform all maintenance staff and nearby workers about the work being done.
- **Confined Spaces:** Avoid working in confined spaces whenever possible.

## Checking for Refrigerant which is flammable

- **Detection:** Use a refrigerant detector to check the area before and during work to identify any toxic or flammable atmospheres.
- **Equipment:** Ensure the leak detection equipment is suitable for all refrigerants and is non-sparking, well-sealed, or intrinsically safe.

## Presence of Fire Extinguisher

- **Hot Work:** If doing hot work on refrigerating equipment or parts, have fire extinguishing equipment readily available.
- **Types:** Keep a dry powder or CO2 fire extinguisher next to the charging area.

## No Ignition Sources

- **Avoid Ignition Sources:** Do not use ignition sources near exposed pipework to prevent fire or explosion risks.
- **Keep Away:** Keep all possible ignition sources, like cigarette smoking, far from the work area where refrigerant might be released.
- **Survey Area:** Check the area around the equipment for flammable hazards and ignition risks before starting work.
- **No Smoking Signs:** "No Smoking" signs should be displayed in the area.

## Ventilated area

- **Ventilation:** Make sure the area is either open or well-ventilated before starting work on the system or doing hot work.
- **Continuous Ventilation:** Maintain ventilation throughout the work to safely disperse any released refrigerant.
- **Disposal:** The ventilation should safely expel refrigerant outside into the atmosphere.

## Checks for Refrigerating Equipment

- **Electrical Components:** Ensure electrical parts are suitable and meet the correct specifications. Follow the manufacturer's maintenance and service guidelines. Contact the manufacturer's technical department if you're unsure.
- **Flammable Refrigerants:** Perform the following checks:
  - Verify that the refrigerant charge matches the room size where the equipment is installed.
  - Check that ventilation machinery and outlets are working properly and are not blocked.
  - If using an indirect refrigeration circuit, check the secondary circuit for refrigerant.
  - Ensure equipment markings are visible and legible. Fix any that are unclear.
  - Install refrigeration pipes and components where they won't be exposed to corrosive substances. If exposure is unavoidable, use corrosion-resistant materials or protect the components.

## Checks for Electrical Devices

- **Repair and Maintenance:**
  - Perform initial safety checks and inspect components.
  - If there is a safety issue, do not connect the electrical supply until it is fixed.
  - If the issue cannot fix immediately but need to keep operating, use a temporary solution and inform the equipment owner.
- **Initial Safety Checks:**
  - Ensure capacitors are safely discharged to prevent sparks.
  - Make sure no live electrical parts or wires are exposed while charging, recovering, or purging the system.
  - Check that earth bonding is continuous.

## Repairs to Sealed Components

- **Disconnect Electrical Supplies:** Always disconnect electrical supplies before removing sealed covers or other components. If you must keep the electrical supply connected, use a permanent leak detection system at the critical point to alert you to any hazardous situations.
- **Protecting the Equipment as follows:**
  - Ensure that working on electrical components does not damage the casing, cables, connections, or seals.
  - Make sure the equipment is securely mounted.
  - Verify that seals or sealing materials are in good condition and effectively prevent the entry of flammable atmospheres. Use replacement parts that meet the manufacturer's specifications.

**Note:** Silicon sealant can interfere with some leak detection equipment. Intrinsically safe components do not need to be isolated before working on them.

## Repair to Intrinsically Safe Components:

- **Avoid Overloading:** Do not apply permanent inductive or capacitive loads that exceed the equipment's permitted voltage and current ratings.
- **Working Live:** Intrinsically safe components are the only ones that can be worked on while live in a flammable atmosphere. Ensure test equipment is rated correctly.
- **Use Manufacturer Parts:** Replace components only with parts specified by the manufacturer. Using other parts could cause ignition if there's a refrigerant leak.

## Cabling

- **Inspect for Damage:** Ensure cabling is not exposed to wear, corrosion, excessive pressure, vibration, sharp edges, or other environmental hazards.
- **Consider Aging:** Check for effects of aging or continuous vibration from sources like compressors or fans

## Leak Detection Methods

- **Use Appropriate Fluids:** Leak detection fluids work with most refrigerants. Avoid using detergents with chlorine, as they can react with the refrigerant and corrode copper pipes.

## Detection of Flammable Refrigerants

- **Avoid Ignition Sources:** Do not use potential sources of ignition, like halide torches or any open flames, to detect refrigerant leaks.
- **Electronic Leak Detectors:** These can be used, but they may need recalibration for flammable refrigerants. Ensure the detector is not a source of ignition and is suitable for the refrigerant. Calibrate the detector in a refrigerant-free area and set it to detect at a percentage of the refrigerant Lower Flammability Limit (LFL), confirming the appropriate gas concentration (up to 25% maximum).
- **Leak Detection Fluids:** Suitable for most refrigerants, but avoid those containing chlorine, as chlorine can react with refrigerants and corrode copper pipes.

## Note:

- Examples of leak detection fluids are
  - Bubble Method
  - Fluorescent Method Agents
- If a leak is suspected, remove or extinguish all naked flames.
- If a leak requiring brazing is found, recover all refrigerant from the system or isolate it with shut-off valves in a remote section. Follow the procedure for removal and evacuation.

## Removal and Evacuation

- **Procedures:** When accessing the refrigerant circuit for repairs or other purposes, follow standard procedures. For flammable refrigerants, it's crucial to use best practices due to flammability concerns. Adhere to the following procedures:
  - Remove refrigerant
  - Purge the circuit with inert gas.
  - Evacuate the system.
  - Purge the system again with inert gas.
  - Open the circuit by cutting or brazing.
- **Recover Refrigerant:** Collect the refrigerant into the correct recovery cylinders.
- **Purge with Oxygen-Free Nitrogen**
  - For appliances with flammable refrigerants, purge the system with oxygen-free nitrogen to make it safe. T h i s
  - Avoid using compressed air or oxygen for purging.
- **For appliances with flammable refrigerants, follow these steps for purging**
  - a. Use oxygen-free nitrogen to break the vacuum in the system.
  - b. Continue filling until the working pressure is reached, then vent the system to the atmosphere.
  - c. Pull the system down to a vacuum. Repeat this process until all refrigerant is removed.
  - d. Use the final charge of oxygen-free nitrogen and vent the system to atmospheric pressure to prepare for work, especially if brazing will be performed.
  - e. Ensure the vacuum pump outlet is away from potential ignition sources and that the area is well-ventilated.

## Charging Procedures

- **Avoid Contamination:** Prevent mixing of different refrigerants by using dedicated charging equipment. Keep hoses or lines as short as possible to reduce the amount of refrigerant they hold.
- **Position Cylinders:** Place cylinders as instructed to ensure proper handling.
- **Earth the System:** Confirm the refrigerating system is properly earthed before charging with refrigerant.
- **Label the System:** Ensure the system is labeled once charging is complete (if it isn't already).
- **Avoid Overfilling:** Take great care to avoid overfilling the refrigerating system.
- **Pressure-Test:** Before recharging, pressure-test the system with the appropriate purging gas.
- **Leak-Test:** Conduct a leak test after charging and before commissioning. Perform a follow-up leak test before leaving the site.

## Decommissioning

- Before starting decommissioning, ensure you are fully familiar with the equipment and its details. Always follow best practices by safely recovering all refrigerants. Take oil and refrigerant samples beforehand for potential analysis if reclaimed refrigerant is to be reused. Confirm that electrical power is available before beginning the procedure.
  - a. Thoroughly understand the equipment and its operation.
  - b. Disconnect the system from its electrical power source.
  - c. Before attempting the procedure, ensure that:
    - Mechanical handling equipment is available for handling refrigerant cylinders, if needed.
    - All personal protective equipment (PPE) is available and used correctly.
    - The recovery process is supervised at all times by a competent person.
    - Recovery equipment and cylinders meet the appropriate standards.
  - d. Recovery equipment and cylinders conform to the relevant standards.
  - e. If a vacuum cannot be achieved, set up a manifold to remove refrigerant from different parts of the system.
  - f. Ensure the cylinder is placed on the scales before starting the recovery process.
  - g. Start the recovery machine and operate it according to the manufacturer's instructions.
  - h. Do not overfill cylinders. (Limit the liquid charge to no more than 80% of the cylinder's volume)
  - i. Do not exceed the cylinder's maximum working pressure, even temporarily.
  - j. Once the cylinders are properly filled and the process is complete, promptly remove the cylinders and equipment from the site, and ensure all isolation valves on the equipment are closed.
  - k. Recovered refrigerant must be cleaned and checked before being charged into another refrigeration system.

## Labelling

Label the equipment to indicate it has been decommissioned and emptied of refrigerant. The label should include the date and the technician's signature. For appliances with flammable refrigerants, ensure that labels clearly state the equipment contains flammable refrigerant.

## Recovery

- **Use Proper Cylinders:** Transfer refrigerant into designated recovery cylinders only. Ensure you have enough cylinders to hold the total system charge. Each cylinder must be labeled for the specific refrigerant it will hold and be equipped with a pressure-relief valve and functional shut-off valves. Empty cylinders should be evacuated and, if possible, cooled before use.
- **Check Equipment:** Ensure recovery equipment is in good working order and suitable for all refrigerants, including flammable ones if applicable. Have a set of instructions and calibrated weighing scales available. Use hoses with leak-free disconnect couplings. Verify that the recovery machine is well-maintained and that any electrical components are sealed to prevent ignition. Consult the manufacturer if you have any doubts.
- **Return Refrigerant:** Return recovered refrigerant to the supplier in the correct recovery cylinder and arrange for a waste transfer note. Never mix different refrigerants in recovery units or cylinders.
- **Handle Compressors and Oils:** If removing compressors or compressor oils, ensure they are evacuated to remove flammable refrigerant from the lubricant. Use only electric heating to accelerate this process. Drain oil safely.

By adhering to these guidelines, you can ensure safe and effective refrigerant recovery.

# 尊敬的用戶，

感謝閣下選購惠而浦冷氣機。我們本著最佳效能、最低操作噪音及令房間變得舒適的宗旨來設計冷氣機。請在操作冷氣機前，小心閱讀本操作手冊，並適當保存以作日後參考。

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本手冊內的圖示可能與實物有所差異，請根據實物以作參考。

在使用本產品前，請仔細閱讀本使用說明書。



此產品具有輕度易燃的R32製冷劑。若製冷劑洩漏並接觸到外部火源，可能會有起火的風險。



使用本產品前，請先閱讀用戶使用手冊。



安裝本產品前，請先閱讀安裝手冊。



維修本產品前，請先閱讀維修手冊。

## 簡介



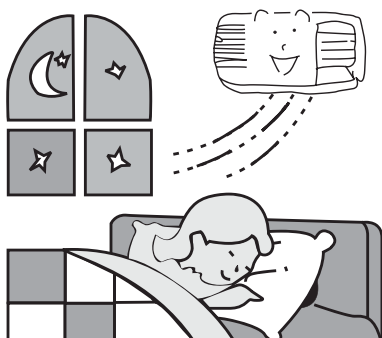
惠而浦冷氣機採用 ZEN Inverter 變頻技術，壓縮機自動進行調節，維持特定溫度，令室內環境保持乾爽舒適。另外，變頻壓縮機轉速平穩，可避免因繁密啟動或關閉壓縮器而造成噪音，讓用戶時刻享受寧靜舒適。



採用更具環保性的R32製冷劑，本窗口式冷氣機不僅提供卓越的制冷效果，更能有效節省能源，同時減少對地球的負擔。享受清涼舒適，輕鬆擁抱綠色生活！

## 在夏季中製冷

在炎熱的夏日，冷氣機可透過抽走熱力來冷凍房間。



## 在雨季或潮濕天氣中除濕

冷氣機能在不降低室溫的情況下除濕，令房間更乾爽及舒適。



# 安全注意事項

- 使用前請仔細閱讀說明書。
- 不正確的操作會導致人身傷害和損害，請特別注意以下指引：

## 標示說明



**危險**

表示危險情況，如果不加以避免，將導致死亡或嚴重傷害。



**警告**

表示危險情況，如果不加以避免，會傷害他人及損壞產品。



**小心**

用戶應嚴格按照使用說明書。它可能會導致產品損壞或人身傷害。

**注意**

表示重要但與危險無關的資訊，用於提醒可能造成財產損失的風險。



表示應以**警告**或**注意**標示的潛在危險。

- 使用電器時，應遵循本說明書的要求，以減少火災、電擊和受傷的風險。
- 請保管好本說明書，如需將產品交給他人使用，請將說明書一同轉交。

## R32 製冷劑



注意：本產品含有輕度易燃的R32製冷劑。不當處理或不正當使用本產品可能會對人身和財產造成嚴重損害。關於此製冷劑的詳細資訊，請參閱“製冷劑”章節。

- 本冷氣機操作時，系統內會循環一種專業的製冷劑。此製冷劑為純氟化物R32。雖然它是可燃且無味的，但其可燃性是非常低，只有在有明火的情況下才會引燃。在某些情況下，可能會引發爆炸。
- 與傳統製冷劑相比，R32更具環保性，對臭氧層無害，且對溫室效應的影響較小。R32擁有優越的熱力學性能，能提高能源效率，同時需要較少的填充。

警告：

- 請勿使用製造商推薦以外的任何方法加速除霜或清潔。若不遵守，可能會導致損壞。如需維修，請立即聯絡客戶服務中心。
- 本產品必須存放在無持續運作的點火源的房間中，例如明火、活躍的燃氣設備或正在運行的電暖爐。
- 請勿刺穿或燃燒該設備。
- 本產品含有輕度易燃的R32製冷劑。進行維修時，請嚴格遵循製造商的說明。
- 請注意，製冷劑可能無任何氣味。



## R32 製冷劑

- 請參閱維修人員手冊第 53 至 57 頁。



根據 EN60335-1

- 年滿8歲及以上的兒童，以及身體、感官或心智能力較弱、缺乏經驗或知識的人員，在得到監督或指導後，可以安全使用本產品，並了解其中的危險。
- 兒童不得玩弄本產品。
- 沒有監督下，兒童不得進行任何清潔和用戶維修。

## 安裝注意事項



- 在家中的固定接線系統中需有配有一個符合國家佈接線要求的全極斷開開關，以便 使用時能斷開。
- 冷氣機必須由專業人士或合格的人員進行安裝。
- 安裝產品時需嚴格按照國家的接線要求進行。
- 本產品必須接地， 且需要接上容量足夠的漏電保護開關。

## 操作注意事項



- 本產品不能由無行為能力，或缺乏經驗和知識的人士使用(包括兒童)，除非他們已獲得由負責他們安全的人就使用本產品進行監督或指導。
- 監護人應確保小孩不能將本產品當成玩具使用。
- 如果電源線損壞，為了避免危險，必須由製造商或指定的維修部門的專業人員更換。
- 嚴禁使用拖線插座供電，以免產品著火。
- 切勿以拉扯電線的方式來拔出插頭。使用時切勿扭曲或用力按壓電線，並確保電線沒有損毀。
- 手濕時切勿觸摸插頭、漏電斷路器和緊急操作按鈕。
- 不能使用汽油等易燃清潔劑產品進行清洗，否則會有火災的風險。
- 為了避免本產品太重造成傷害，需2人或以上來移動和安裝本產品。



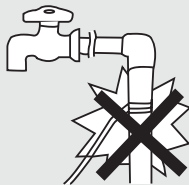


- 在清洗、維護及維修前需拔下電源插頭。
- 如長時間不使用本產品，需拔下電源插頭。
- 當產品有異味或異音時，請斷開電源並與售後服務聯繫。
- 如長期不使用冷氣機或遇上雷電或閃電時，請拔下電源插頭。
- 務必首先使用遙控器關閉冷氣機，不要使用電源斷路器或以拉扯電源插頭方法將其電源關閉。

- 使用電器時，應遵循本說明書的要求，以減少火災、電擊和受傷的風險。

製冷模式操作 (COOL Mode)	乾燥模式操作 (DRY Mode)
<p>室外溫度應該在18°C至43°C之間，否則，冷氣機可能出現故障。</p> <p>房間濕度應低於90%，否則冷氣機表面會出現水珠，又或當運行一段長時間後，會出現滴水情況，但這屬正常現象。</p>	<p>室外溫度應該在18°C至43°C之間，否則，冷氣機可能出現故障。</p>

## 電力要求

	<ul style="list-style-type: none"> <li>• 額定電壓和電壓範圍：220V~240V，地線必須連接。</li> <li>• 若電壓過高，會損毀電器組件。</li> <li>• 若電壓過低，壓縮機會強烈震動和損毀冷凍劑系統，並會令壓縮機及電器組件不能正常運作。</li> </ul>	
	<ul style="list-style-type: none"> <li>• 要使用特別的電源插座，而且電源插座和線路圖必須符合線路條例，接駁地線的方法必須可靠。</li> <li>• 在固定電路中，必須有漏電保護開關，當中必須有足夠的電力容量，而空氣開關必須有足夠空間。</li> </ul>	
<p><b>地線</b></p>	<p>要確保有可靠的地線連接，切勿將地線接駁到以下地方：</p>	
<p>水龍頭</p>		

## 安裝預防措施：

窗口式冷氣機是如此珍貴，不當安裝會對冷氣機造成重大傷害。當安裝機組請聯絡專業技術人員，請勿自行安裝。



## 位置：

- 冷凝水必須能方便地排走。
- 安裝冷氣機時，請遠離電視或收音機，以免對影像和聲音造成干擾。
- 在充滿鹽份和海岸地區或靠近溫泉的地方，又或容易受硫磺氣體污染的場所，及其他特別地方，
- 在使用冷氣機前，請聯絡零售商。
- 避免放在易燃氣體容易洩漏的地方。
- 請勿將冷氣機安裝在不穩定或會移動的地方(如大型車輛)，又或容易受侵蝕的地方(如化學工場)。
- 避免放在熱源或受陽光直射的地方。
- 切勿將冷氣機放在洗衣房、浴室、淋浴間、泳池附近等地方。
- 避免放在兒童容易接觸到的地方。
- 若閣下購買有遙控器的冷氣機，當它安裝在有強力電磁干擾的地方時，在使用前，應先聯絡零售商以防止出現故障。
- 安裝R32冷氣機時，如果房間內有其他燃氣設備或電加熱器，請確保R32冷氣機和這些燃氣設備、電加熱器之間有至少2米或以上的距離，以避免室內的製冷劑洩漏時可能導致的危險。

## 安裝時注意事項：

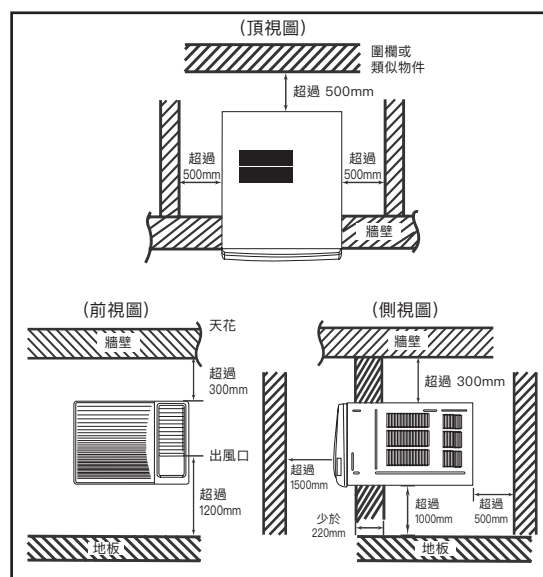
- 安裝在適當的位置，以避免操作時產生震動和噪音。請選擇一個周圍沒有障礙物及容易接觸到插頭的安裝位置。
- 請準備一個稍為大於冷氣機尺寸的安裝孔口。
- 請根據下圖選擇安裝位置。

## 產品尺寸：

型號	W	H	D
7K	450	350	640
9K	450	350	640
12K	560	375	708
18K	660	428	800

單位：毫米

冷氣機與四周障礙物的距離應達到以下要求：  
大於300毫米(上面)，大於500毫米(左面)，大於500毫米(右面)，大於1500毫米(前面)，大於500毫米(後面)。



## 安裝步驟：

- 1) 撕去面板上的貼紙。
- 2) 裝冷氣機放入安裝孔口位置。
  - 安裝冷氣機時，應往後傾斜滑入安裝，確保冷凝水可以排出。(傾斜角度約 $3^{\circ}\pm 1^{\circ}$ ) (如右圖)
  - 安裝冷氣機的位置必須夠穩固，以減少產生燥音及震動。
- 3) 使用海綿將框架內的空隙填滿。

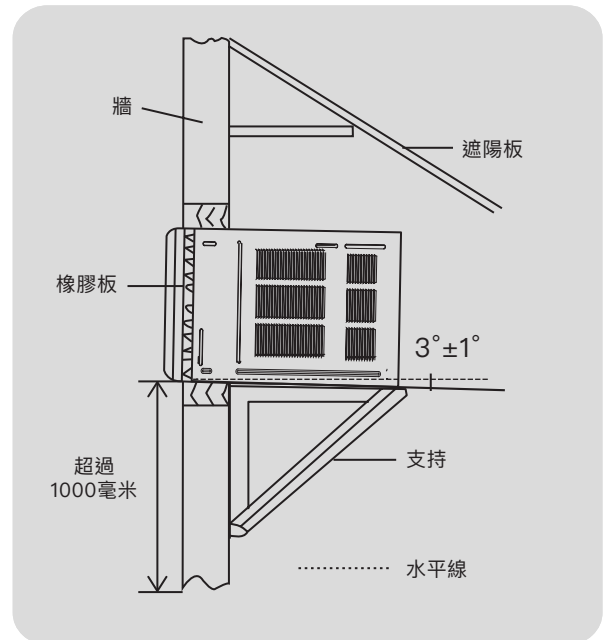
## 安裝配件：

### 使用承托支架

- 安裝孔口位置必須夠穩固，可以承托整部冷氣機，若不穩固，可在室外使用鐵架支撐。
- 鐵架應固定在建築物外牆(如右圖)。

### 使用太陽擋板

- 應防止冷氣機上面有物件意外掉下或受陽光直射。若冷氣機上面沒有上蓋，應聯絡零售商安裝太陽擋板。
- 當安裝太陽擋板時，切勿阻礙側面格柵的空氣吸入口。



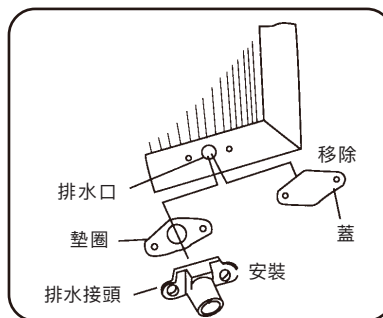
# 安裝指引

## 排水 (形式1)

要獲得最大的製冷效果，冷氣機的設計，是可以讓冷凝水濺落在冷凝器線圈上。若濺水聲令你煩擾，你可根據下列步驟，安裝一個室外的排水系統，但製冷效果可能稍有影響。

1. 冷氣機背後有排水口。
2. 將蓋從排水口取出，然後用螺絲將排水系統連接。
3. 將排水管連接到出口。

注意：可以在當地購買排水管或管道以切合閣下的實際需要。

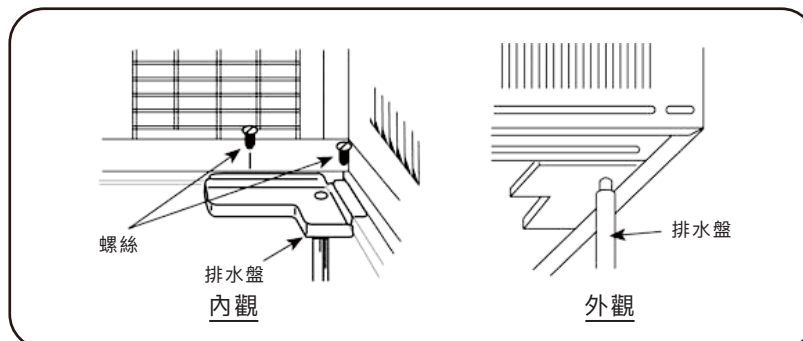


## 排水 (形式2)

要獲得最大的製冷效果，冷氣機的設計，是可以讓冷凝水濺落在冷凝器線圈上。當安裝冷氣機也請一同安裝排水盒。

若濺水聲令你煩擾，你可根據下列步驟，安裝一個室外的排水系統，但製冷效果可能稍有影響。

1. 從冷氣機外殼滑出底盤。
2. 從機身底板上，移去塑膠塞。
3. 用兩枚螺絲將排水盤安裝在機殼的角位。
4. 將排水管連接至在排水盤底部的排水出口上。
5. 在排水盤中倒入2-3杯水，以確保排水組裝正常。
6. 將底盤滑入機身的原來位置。



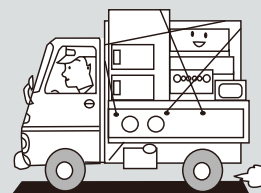
注意：

- 使用前必須安裝排水盤及排水箱。
- 你可在當地購買排水管或導管以切合閣下的實際需要。

## 安裝注意事項

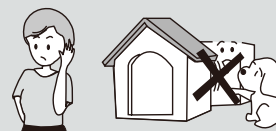
### 搬移

在搬移冷氣機其他地方前，請先聯絡零售商。搬移冷氣機時，必須按照專業技術員的指令進行。



### 噪音

- 安裝在一個可減少噪音和震動的堅固位置。
- 切勿在室外機的出口前方放置任何物件，以減低噪音。
- 確保熱氣或噪音不會影響你的鄰居。
- 如操作時發出特殊聲音，請聯絡閣下的零售商。
- 使用安全的承托支架。



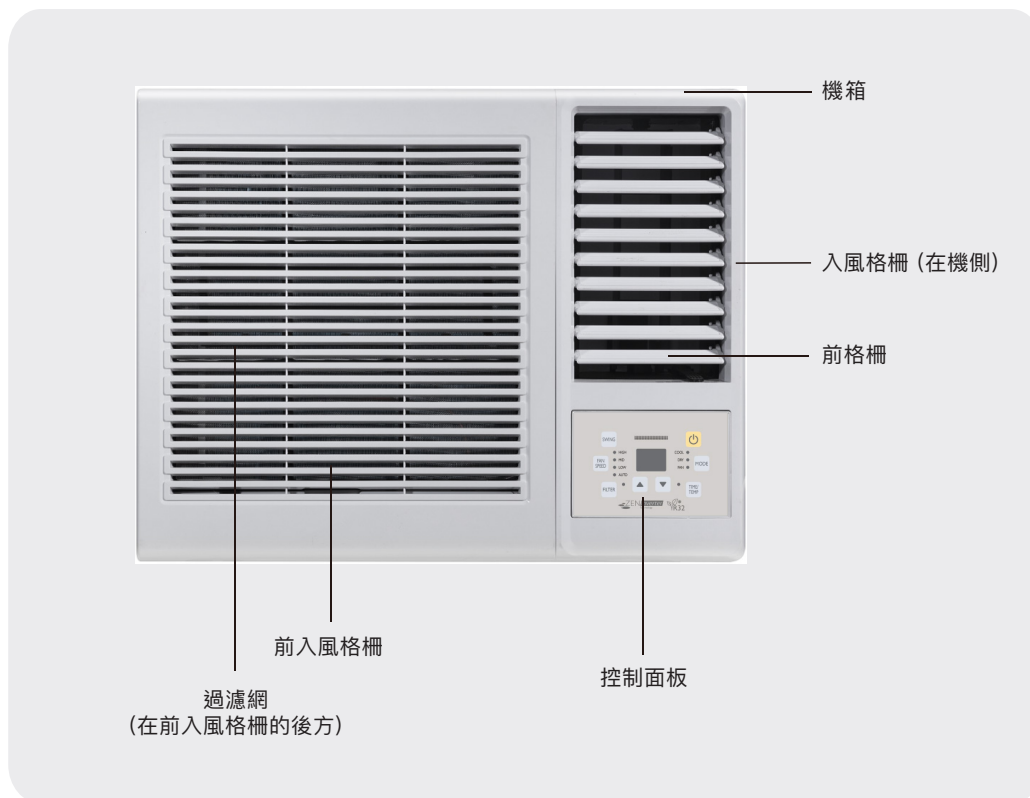
### 電器配線

- 必須連接可靠的地線。
- 必須使用特定的線路，切勿使用不穩固的插座，因不良接觸可能造成過熱或火災的危險。
- 切勿用力拉扯電源線。
- 在固定的電路上，應該安裝有漏電保護開關，而漏電電流應少於30mA。
- 應根據冷氣機的接線圖，使用適當的方法將冷氣機及電源線，以及每個獨立組件進行相互連接。
- 應根據國際電路規定安裝冷氣機。
- 一個全極斷電開關，在所有電極之間，應有3mm的接觸分離，並應連接到固定的線路之中。
- 應在電路安裝空氣開關(熱磁斷路器)。
- 若電源線被損毀，必須由生產商、零售商或合資格的技術人員進行更換以防止危險發生。
- 所有電氣工程必須根據本地的接線條例進行。



# 名稱及操作說明

## 產品外觀

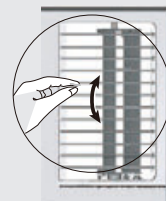


注意：冷氣機面板的外觀圖片只供參考，請以實物作標準。

## 風向調整

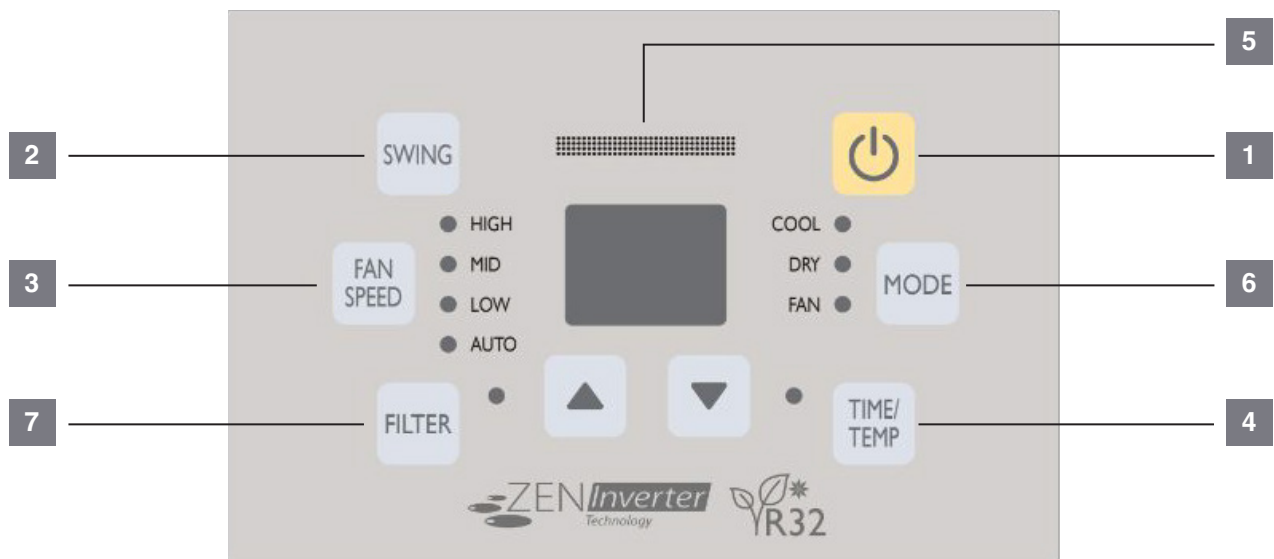
### 垂直出風翼片

通過調校翼片，便可垂直向上、向下或直出，控制出風方向。





## 控制面板



### 1 電源按鈕

當按下此按鈕，冷氣機會開始運作。再次按下按鈕，運作會停止。

### 2 擺風按鈕

啟動自動送風搖擺功能。

### 3 風速按鈕

按此按鈕選擇風速：高、中、低、自動。

### 4 時間/溫度掣按鈕

- 按下▲按鈕，以調高冷氣機的設定(操作)溫度，按下▼按鈕，降低冷氣機的設定(操作)溫度。溫度調節範圍由攝氏16至30度。
- 如設置TIMER(定時)，按▲按鈕，以一小時為單位，增加已選的時間，按▼按鈕以一小時為單位減低已選的時間。時間的設定範圍是由0至24小時。

### 5 訊號接收器

用於接收遙控器訊號。

### 6 模式按鈕

選擇操作模式：COOL (製冷)、DRY (抽濕)、FAN (送風)。

### 7 過濾網

這是清潔空氣過濾網提醒。LED燈會在操作250小時後亮起，如要在清潔後重新設定，按“過濾網”按鈕，燈將會熄滅。

## 遙控器



### 1 開/關

按下此按鈕開啟或停止操作。

### 2 模式

按下此按鈕，選擇不同模式操作。  
(第六感/製冷/抽濕/風速)

### 3 -

按下此按鈕減低溫度設定。

### 4 +

按下此按鈕提升溫度設定。

### 5 風速

按此按鈕設定風速大小。

### 6 搖擺

按下此按鈕設定搖擺角度。

### 7 睡眠模式

按下此按鈕進入睡眠運作模式。

### 8 時間制式

按下此按鈕作選擇開啟/關閉時間設定。

### 注意：

- 請確保在遙控器與接收器之前沒有阻礙物阻擋。
- 請不要拋擲遙控器。
- 切勿在遙控器濺上任何液體以及將遙控器放在直射陽光及非常酷熱的地方。

## 遙控器按鈕簡介

### 1 開/關

按下此按鈕開啟，再按下一次作關機。

### 2 模式

每次按下此按鈕，選擇模式將順序由第六感操作、製冷、抽濕至風速，顯示如下：



\* 屏幕上將同時顯示“AUTO”字樣，而溫度將設定在25度。除濕模式下，風速默認為低風檔。

### 3 -

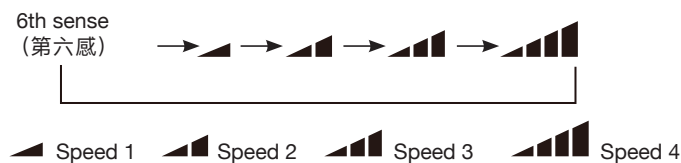
按下此按鈕減低溫度設定，連續按下兩秒以上可加快減低溫度，在第六感模式時，溫度不能作手動調控。

### 4 +

按下此按鈕增加溫度設定，連續按下兩秒以上可加快增加溫度，在第六感模式時，溫度不能作手動調控。

### 5 風速

此按鈕用於調控風速，並將按以下次序運行，由第六感操作模式，再回到第六感操作模式。如非指定型號，當遙控顯示 Speed 1 或 Speed 2，即代表是冷氣低速，而在 speed 3 或 Speed 4 時，即代表冷氣高速。



### 6 搖擺

按下此按鈕開啟或關閉搖擺功能。

### 7 睡眠模式

按下此按鈕進入睡眠運作模式，再按一次作關閉此功能。此功能只適用於製冷或抽濕模式，為您提供最舒適的溫度。睡眠模式運作時，當冷氣機操作1小時後，設定溫度會上升1度，再操作2小時後，設定溫度會再上升1度，然後保持穩定。

### 8 時間制式

按下此按鈕作設定自動開啟/自動關閉，如要取消時間制操作，連續按下此按鈕兩次即可。

### 9 混合使用 "+" 和 "-" 按鈕：鎖定功能

同時按下 "+" 和 "-" 按鈕，便可為遙控鍵盤作鎖定和解鎖。

# 名稱及操作說明

## 注意：

- 這是一款受普遍使用的遙控器，可用於多功能冷氣機。對於沒有某些功能的冷氣機，按遙控器上相應的按鈕，本機將會保持原來的運行狀態。
- 接上電源後（待機狀態下），可使用遙控器操作冷氣機。
- 開啟冷氣機後，每按一次按鈕，遙控器顯示屏上發出信號圖示" "會閃爍。如果冷氣機發出 "bee bee" 聲，則代表已發出信號。
- 關閉冷氣機後，遙控器會顯示設定溫度（如果顯示屏燈在室內亮起，會顯示相應的圖示）；開啟冷氣機時，則會顯示正在進行的功能圖示。

## 更換電池

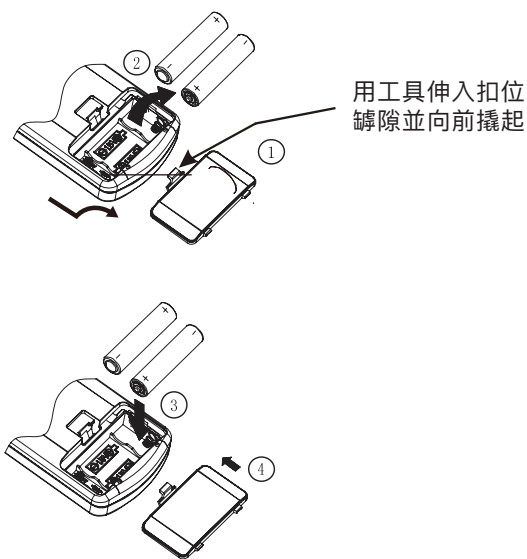
1. 移除遙控器的電池蓋。為避免因小零件而引致窒息，請使用工具如一字螺絲批移除遙控器的電池蓋。

- 先用螺絲批伸入扣位罅隙。
- 輕輕施壓把電池蓋撬起。

2. 取出舊電池。

3. 放入兩枚AAA 1.5V 新電池，並留意其兩極性。

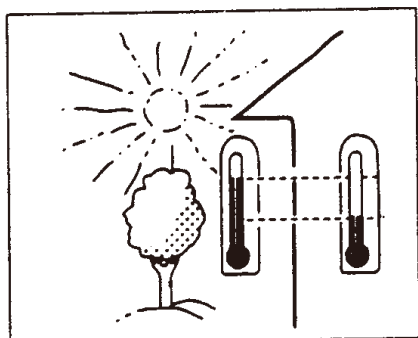
4. 重新把遙控器的電池蓋合上(如圖示)。



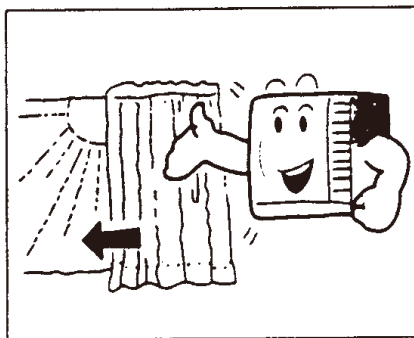
## 注意：

- 不要將新舊或者不同類型的電池混合使用。
- 當遙控器長時間不使用時，請將電池拆下。
- 電池的使用壽命是1年。
- 遙控器必須放置在遠離電視或者其他電器一米以上。
- 遙控器可能會受到光管、無線電話等信源影響，可靠近冷氣機以改善遙控器接收。

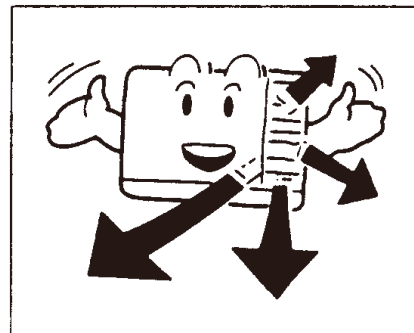
## 舒適且經濟的操作



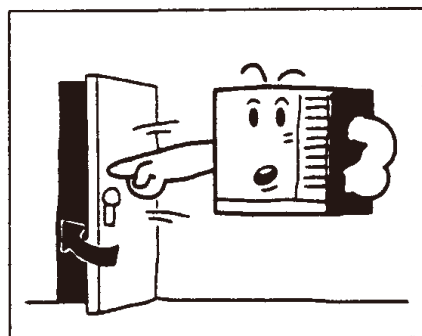
切勿令房間室溫過冷，以免影響健康，亦浪費電力。



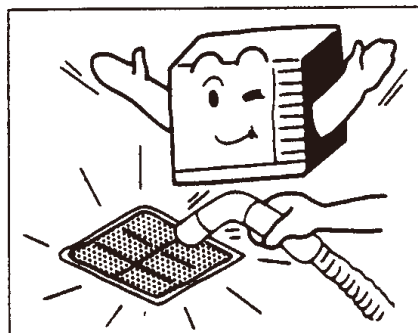
保持百頁簾及窗簾關閉。當冷氣機運作期間，不要讓陽光直接照射入室內。



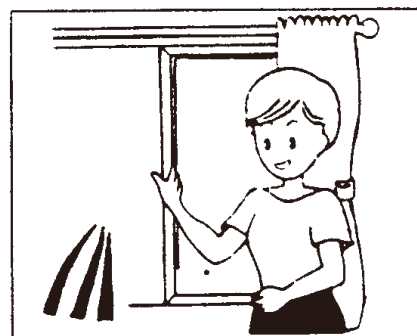
保持室溫均衡。垂直和橫向調較氣流方向，確保室溫均衡。空氣不能在流入的方向釋出。



確保門窗關緊。儘量避免打開門窗，以保持冷氣在室內流動。



定期清潔空氣過濾網。若空氣過濾網阻塞，會減低除濕效果。至少每兩星期清潔空氣過濾網一次。



偶爾要排出室內的空氣。由於窗戶緊閉，應不時打開門窗以保持室內空氣流通。當冷氣機運作時，窗簾或門窗應關上，以免流失冷氣。

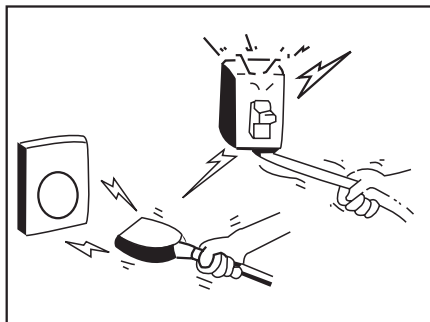


- 請注意，本產品含有輕度易燃的R32製冷劑。不當處理可能對人身、設備及財產造成嚴重損害。關於此製冷劑的詳細資訊，請參閱第32頁的「R32製冷劑」章節。
- 本產品必需安裝、使用和存放在面積大於特定大小的房間內。詳情請查參閱「可燃製冷劑的安全操作」章節，以確定所需的房間大小。

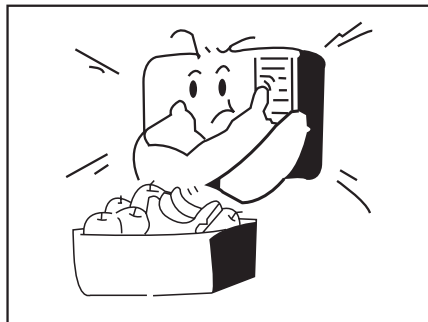
# 注意事項

## 安全又健康的操作

- 1) 產品安裝後，一定要能接觸得到插頭。
- 2) 切勿在洗衣房內使用本產品。
- 3) 若電線損壞，一定要由製造商或維修代理更換，以免發生危險。



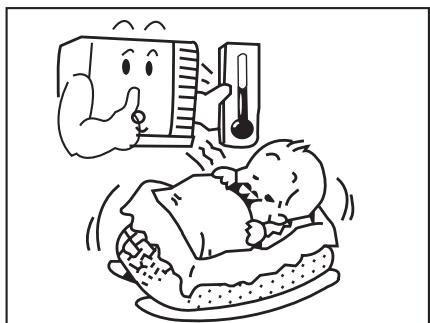
切勿用力拉扯電線。損壞的電源線可以引致嚴重的觸電危險。



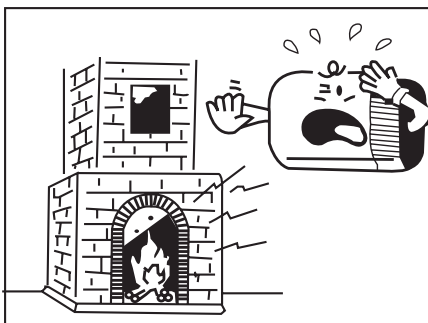
切勿使用冷氣機作冷卻房間以外的用途。切勿使用冷氣機作乾衣、保存食物或培植蔬菜的用途。



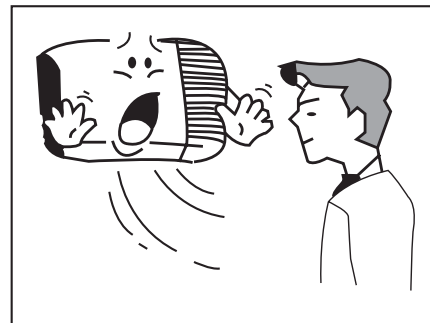
切勿阻塞吸風和出風口，以免降低效能及引致冷氣機不正常運作。切勿在空氣孔口插入木條或其他物件，以免在接觸電器組件及風扇時產生危險。



選擇最合適的溫度。小心調節溫度以符合個人需要。嬰兒、老人或病人身處的房間應保持合適的溫度。

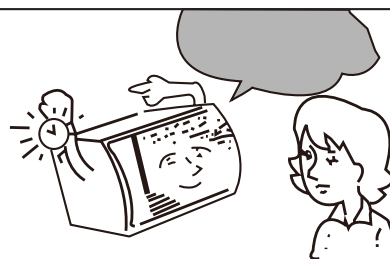


切勿在附近使用發熱產品，過熱會令冷氣機的塑膠組件溶化。



為健康著想，避免把身體長時間直接暴露在持續及單方向的氣流下。

在製冷或製熱期間關閉冷氣機後，至少要等待三分鐘才可再次啟動。小童不應在沒有監護人的情況下，使用此冷氣機。

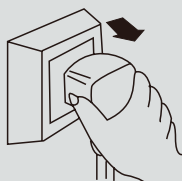


- 請注意，本產品含有輕度易燃的R32製冷劑。不當處理可能對人身、設備及財產造成嚴重損害。關於此製冷劑的詳細資訊，請參閱第32頁的「R32製冷劑」章節。
- 本產品必需安裝、使用和存放在面積大於特定大小的房間內。詳情請查參閱「可燃製冷劑的安全操作」章節，以確定所需的房間大小。

## 清洗主機

1. 清潔前先中斷電源供應。

在冷氣機完全關閉，才把插頭拔出



2. 使用軟布清潔機身。

若機身太過骯髒，可把軟布浸在水溫攝氏40度以下的溫水中，扭乾軟布並擦拭污物。



清潔前用手扭乾軟布

3. 切勿使用噴霧氣體、苯、溶劑、洗滌劑、化學溶劑等清洗冷氣機。



4. 切勿直接把水濺進冷氣機內。在機身內的微型電腦及電路板絕不可被水弄濕。



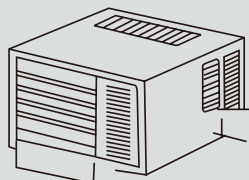
會發生意外

### 空氣過濾網

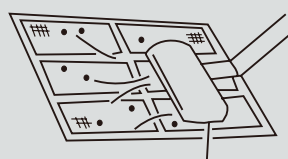
入風格柵後面的空氣過濾網，應在有需要時，或最少每兩星期清洗一次。

如何清洗空氣過濾網：

1. 移除入風格柵，抓緊過濾網上的夾片，然後拉出。

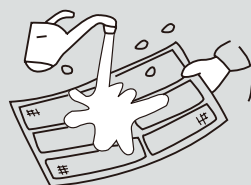


2. 把過濾網沾塵面的微塵吸植。



吸塵器

3. 清洗過濾網，在緩緩的水流下，洗去積聚的塵垢。



4. 若過濾網非常骯髒，可在清洗的水中，加入溫和的家用清潔劑。

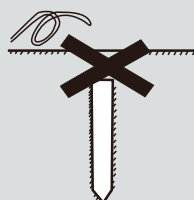


待過濾器徹底乾透再重新裝上。

若有需要時，可向專業維修人員查詢清洗的方法。

### \* 檢查地線

是否損毀或鬆脫？



### \* 檢查室外冷氣機的入風及出風口有否阻塞

不能流通的空氣，可引致效能變差







注意：

為確保安全，每次清洗冷氣機前應關閉冷氣機及電源。

# 故障排除

在維修前，可先查看下表，以節省時間及金錢。

故障現象	故障處理
<p>冷氣機完全不能操作</p> 	<ul style="list-style-type: none"> <li>• 電源供應是否出現故障？</li> <li>• 插頭是否拔出？</li> <li>• 電源保險絲或電掣是否關上？</li> <li>• 電壓是否過高或過低？</li> </ul>
<p>製冷效果不佳</p> 	<ul style="list-style-type: none"> <li>• 空氣入風口或出風口是否被阻塞？</li> <li>• 在房間內有否其他發熱源頭？</li> <li>• 空氣過濾網是否太骯髒？</li> <li>• 室內風速是否調較至LOW(低)的位置？</li> <li>• 或者房間在冷氣機運作時太熱。</li> <li>• 是否被陽光直接照射？</li> </ul>
<p>釋出有霧空氣</p> 	<ul style="list-style-type: none"> <li>• 在製冷模式 (COOL) 時，由於房間潮濕的空氣被迅速冷卻，偶爾會有霧氣從室內冷氣機釋出。</li> <li>• 由於吸入的空氣有可能混雜傢具及蒸汽的氣味，因此室內出風口釋出一些氣味亦屬正常狀態。</li> </ul>
<p>冷氣機操作時發出噪音</p> 	<ul style="list-style-type: none"> <li>• 聽到像流水的聲音：這是製冷劑在冷氣機內流動的聲音。</li> <li>• 像淋浴的聲音：這是處理除濕水份在冷氣機內的聲音。</li> </ul> <p>這是正常的。</p>
<p>冷凝水好像從冷氣機中滲漏</p>	<ul style="list-style-type: none"> <li>• 當冷氣機的氣流冷卻室內溫暖的空氣時，便會產生冷凝現象。</li> </ul>
<p>冷氣機在重新啟動後三分鐘未能運作</p>	<ul style="list-style-type: none"> <li>• 這是用作保護機械裝置。</li> <li>• 等候三分鐘，冷氣機會開始運作。</li> </ul>



如遇以下情況，請立即停止操作，拔掉插頭，並聯絡閣下的零售商。

- 不正常地開始或停止操作。
- 電源保險絲或開關經常跳掣。
- 不小心把水或其他物質濺進冷氣機內。
- 電線過熱或電線出現裂痕。
- 出現其他特殊情況。



## 棄置說明

### 棄置包裝物料

1. 包裝物料為100%環保，並且有回收標誌。包裝物料不能分散棄置，必須符合所在當地有關法規的規定。
2. 有關處理和回收該產品及其包裝更詳細的信息，請聯繫當地有關機構或您購買本產品的商店作廢物回收。

### 報廢家電

3. 本產品已經取得了可回收或可重複使用的材料。報廢必須符合當地的垃圾處理規定進行。報廢之前，一定要切斷電源線，使設備無法重新使用。
4. 在產品或者產品附帶的文檔中有此標誌表示該產品不能被當作生活垃圾處理，但必須棄於用作存儲或回收電子/電器產品的地方。
5. 遙控器中的電池需正確地回收或丟棄。電池應做為有害垃圾由有資質的回收點回收。



## 可燃製冷劑的安全操作

### 安裝和維修人員的資格要求

- 1) 所有從事製冷系統工作的技術人員必須持有授權機構頒發的有效證書，並擁有處理製冷系統的行業認可資格。  
如果維修或修理需要額外的技術人員，他們必須由具備處理可燃製冷劑資格的專業人員進行監督。
- 2) 維修必須使用製造商推薦的方法進行。

### 安裝注意事項

- 1) 本冷氣機不得在有明火的房間（如火源、活躍的燃氣設備或正在運行的暖氣器）中使用。
- 2) 本冷氣機必須安裝在大於最低房間大小要求的房間內。最小房間的尺寸要求見下表。
- 3) 安裝後必須進行泄漏測試。

### 最小房間的尺寸

R32雪種重量 (千克)	≤1.842	1.9	2.0	2.1	2.2	2.3	2.4	2.5
最少房間面積 (平方米)	/	11.2	12.4	13.6	15	16.3	17.8	19.3

# 安全操作及維護注意事項

## 維修注意事項

- 1) 確保維護區域的房間大小符合要求。設備僅能在符合要求的房間內操作。
- 2) 檢查維護區域是否通風良好。在整個操作過程中必須保持持續通風。
- 3) 檢查維護區域是否存在任何火源或潛在火災危險。
- 4) 檢查設備標示是否保持良好狀況。如標示模糊或損壞，請更換警告標誌。

## 焊接

- 1) 如果在維護過程中需要切割或焊接製冷系統管道，請遵循以下步驟：
  - a. 關閉設備並斷開電源。
  - b. 移除製冷劑。
  - c. 進行抽真空。
  - d. 使用氮氣(N<sub>2</sub>)清潔管道。
  - e. 進行切割或焊接。
  - f. 將設備運送到服務地點進行焊接。
- 2) 製冷劑應回收至專用儲存罐中。
- 3) 確保真空泵出口附近沒有明火，並且該區域通風良好。

## 填充製冷劑

- 1) 使用專為R32設計的製冷劑填充設備。確保不同類型的製冷劑不混合，以防止污染。
- 2) 在填充過程中，製冷劑罐應保持直立。
- 3) 填充完成後(或未完成時)，應將標籤附加到系統上。
- 4) 請勿過量填充。
- 5) 填充完成後，進行泄漏檢測，然後再進行任何測試。在系統移除後，再次進行泄漏檢測。

## 運輸和儲存的安全指示

- 1) 在卸貨和打開容器之前，使用可燃氣體檢測器檢查氣體泄漏。
- 2) 遠離火源，避免吸煙。
- 3) 遵守當地的規章和法規。

## 可燃製冷劑的安裝檢查

- **填充量:** 確保製冷劑填充量與安裝製冷劑部件的房間大小相匹配。
- **通風:** 確認通風設備和出口正常運行且未被阻塞。
- **間接製冷劑回路:** 如果使用間接製冷劑回路，檢查次級回路中是否有製冷劑存在。
- **標示:** 確保設備標示清晰可見。如有不清晰或不可見的標示，應予以更換或修正。
- **管道和部件安裝:** 將製冷管道和部件安裝在防止腐蝕性物質的區域。如果無法避免接觸腐蝕，請使用耐腐蝕材料或提供適當的保護。

## 電子零件部件的維修和保養

- **安全檢查:** 在維修和保養過程中，進行初步安全檢查並檢查部件狀況。
- **故障處理:** 如果故障威脅到安全，請斷開電源直到問題解決為止。
- **臨時解決方案:** 如果無法立即修復但必須繼續運行，請實施合適的臨時解決方案。
- **報告:** 通知設備擁有者故障情況和臨時措施，以便所有相關方都能了解。

## 初步安全檢查

- **電容器:** 確保電容器已安全放電，以防產生火花。
- **電子零件:** 在填充、回收或排氣系統時，確保沒有裸露的帶電部件或電線。
- **接地:** 確認接地連接連續。

## 區域檢查

- **安全檢查:** 在處理含可燃製冷劑的系統之前，進行安全檢查以降低點燃風險。
- **標準:** 在維修製冷系統時，請完成IEC60335-2-40:2018 附錄DD.4.3至DD.4.7中規定的檢查。

## 工作程序

- **控制程序:** 以減少可燃氣體或蒸汽風險的方式進行工作。

## 一般工作區域

- **指示:** 告知所有維修人員和附近工人有關正在進行的工作。
- **受限空間:** 盡可能避免在受限空間內工作。

## 檢查易燃性製冷劑

- **檢測:** 使用製冷劑檢測儀在工作前和工作期間檢查該區域，以識別任何有毒或易燃的氣體環境。
- **設備:** 確保洩漏檢測設備適用於所有製冷劑，並且是無火花、密封良好或本質安全的。

## 滅火器的配備

- **高溫作業:** 如果在製冷設備或部件上進行高溫作業，應隨時備有滅火設備。
- **類型:** 在填充區旁邊放置乾粉或二氧化碳滅火器。

## 避免點火源

- **避免點火源:** 不要在裸露的管道附近使用點火源，以防火災或爆炸風險。
- **遠離:** 將所有可能的點火源，例如吸煙，遠離可能釋放制冷劑的工作區域。
- **檢查區域:** 在開始工作之前，檢查設備周圍區域是否有易燃危險和點火風險。
- **禁煙標誌:** 該區域應設有「禁止吸煙」的標誌。

## 通風區域

- **通風:** 在系統維修或進行高溫作業之前，確保區域是開放的或通風良好的。
- **持續通風:** 在工作期間保持通風，以安全吹散任何釋放的製冷劑。
- **排放:** 通風系統應將製冷劑安全排出至大氣中。

## 檢查製冷設備

- **電子零件:** 確保電子零件適用並符合正確的規格。遵循製造商的維護和服務指南。如果不確定，請聯繫製造商的技術部門。
- **易燃性製冷劑:** 進行以下檢查
  - 驗證製冷劑的填充量是否與設備安裝的房間大小相符。
  - 檢查通風設備和出口是否正常運作且未被阻塞。
  - 如果使用間接制冷迴路，檢查次級迴路中的製冷劑。
  - 確保設備標記清晰可見。修復任何不清楚的標記。
  - 將製冷管道和部件安裝在不會暴露於腐蝕性物質的地方。如果無法避免暴露，應使用耐腐蝕材料或保護部件。

## 檢查電子設備

- **維修和保養:**
  - 進行初步安全檢查並檢查各個部件。
  - 如果有安全問題，在修復之前不要接通電源。
  - 如果問題無法立即修復但需要繼續運行，應使用臨時解決方案，並通知設備所有者。
- **初步安全檢查:**
  - 確保電容器已安全放電，以防止產生火花。
  - 在系統填充、回收或清潔時，確保沒有裸露的帶電部件或電線。
  - 檢查接地連接是否保持連續。

## 封閉元件的維修

- **斷開電源:** 在拆除封閉蓋或其他部件之前，務必斷開電源。如果必須保持電源連接，請在關鍵點使用永久性洩漏檢測系統，以提醒您任何危險情況。
- **保護設備如下:**
  - 確保在處理電子零件時不會損壞外殼、電纜、連接件或密封圈。
  - 確保設備穩固安裝。
  - 驗證密封圈或密封材料狀況良好，並有效防止可燃氣體進入。使用符合製造商規格的更換部件。

**註:** 硅膠密封劑可能會干擾某些洩漏檢測設備。本質安全元件在維修之前不需要隔離。

## 對本質安全元件的維修

- **避免超負荷:** 不要施加超過設備允許電壓和電流額定值的永久性感應或電容負荷。
- **帶電工作:** 只有本質安全元件可以在易燃氣體環境中進行帶電作業。確保測試設備的額定值正確。
- **使用製造商部件:** 僅使用製造商指定的部件進行更換。使用其他部件可能會在制冷劑洩漏時引發點火。

## 電纜

- **檢查損壞:** 確保電纜不會暴露於磨損、腐蝕、過度壓力、震動、鋒利邊緣或其他環境危險。
- **考慮老化:** 檢查是否受到老化或來自壓縮機或風扇等源的持續震動影響。

## 洩漏檢測方法

- **使用適當的液體:** 洩漏檢測液適用於大多數製冷劑。避免使用含氯的清潔劑，因為它們可能與製冷劑反應並腐蝕銅管。

## 可燃性製冷劑檢測

- **避免點火源:** 不要使用可能的點火源，如氯化氫火炬或任何明火，來檢測製冷劑洩漏。
- **電子洩漏檢測儀:** 這些儀器可以使用，但可能需要重新校準以適應可燃性製冷劑。確保檢測儀本身不會成為點火源，並且適用於該製冷劑。在無製冷劑的區域內進行校準，並將其設置為檢測製冷劑的低可燃極限(LFL)百分比，確認適當的氣體濃度(最高達25%)。
- **洩漏檢測液:** 適用於大多數製冷劑，但避免使用含氯的液體，因為氯會與製冷劑反應並腐蝕銅管。

## 註:

- 洩漏檢測液的例子包括:
  - 氣泡法
  - 螢光法試劑
- 如果懷疑有洩漏，應移除或熄滅所有明火。
- 如果發現需要焊接的洩漏，應從系統中回收所有製冷劑或用遠程閥門將其隔離。按照拆除和排空的程序進行操作。

## 拆除和排空

- **程序:** 在進行維修或其他操作時，進入製冷劑回路應遵循標準程序。由於可燃性製冷劑的安全顧慮，必須使用最佳實踐。遵循以下程序：
  - 移除製冷劑
  - 使用惰性氣體排空回路。
  - 排空系統。
  - 再次使用惰性氣體排空系統。
  - 通過切割或焊接打開回路。
- **回收製冷劑:** 將製冷劑收集到正確的回收瓶中。
- **用無氧氮氣排空**
  - 對於具有易燃性製冷劑的設備，使用無氧氮氣排空系統以確保安全。這可能需要重複幾次。
  - 避免使用壓縮空氣或氧氣進行排空。
- **對於具有可燃性製冷劑的設備，請遵循以下排空步驟:**
  - a. 使用無氧氮氣打破系統中的真空。
  - b. 繼續充填直到達到工作壓力，然後將系統排放到大氣中。
  - c. 將系統抽至真空狀態。重複此過程，直到所有製冷劑被移除。
  - d. 使用最後一瓶無氧氮氣，並將系統排放至大氣壓，以準備進行工作，特別是如果將進行焊接。
  - e. 確保真空泵出口遠離潛在的點火源，並且該區域通風良好。

## 填充程序

- **避免污染:** 使用專用填充設備，防止不同製冷劑混合。保持軟管或管線盡可能短，以減少它們所含的製冷劑量。
- **放置氣瓶:** 按照指示放置氣瓶，以確保正確處理。
- **接地系統:** 在填充製冷劑之前，確認製冷系統已正確接地。
- **標示系統:** 確保系統在填充完成後標示清晰(如果尚未標示)。
- **避免過度填充:** 謹慎操作，避免過度填充制冷系統。
- **壓力測試:** 在重新填充之前，使用適當的排空氣體對系統進行壓力測試。
- **洩漏測試:** 填充後和啟動前進行洩漏測試。離開現場之前進行跟進的洩漏測試。

## 退役程序

- 在開始退役之前，確保對設備及其細節有充分了解。始終遵循最佳實踐，安全回收所有製冷劑。如果回收的製冷劑將重新使用，請事先取樣油和製冷劑以便進行潛在分析。確認在開始程序之前電力供應正常。
  - a. 充分了解設備及其操作。
  - b. 斷開系統的電源。
  - c. 在嘗試程序之前，確保：
    - 如果有需要，準備好機械處理設備以處理製冷劑氣瓶。
    - 所有個人防護設備(PPE)已準備妥當並正確使用。
    - 回收過程務必由合格人員監督。
    - 回收設備和氣瓶符合適當的標準。
  - d. 回收設備和氣瓶符合相關標準。
  - e. 如果無法達到真空狀態，設置歧管以從系統的不同部位移除製冷劑。
  - f. 在開始回收過程之前，確保氣瓶放在量度器上。
  - g. 啟動回收機器，並根據製造商的指示操作。
  - h. 不要過度填充氣瓶。(限制液體充填量不超過氣瓶體積的80%)
  - i. 不要超過氣瓶的最大工作壓力，即使是暫時的也不行。
  - j. 當氣瓶正確填充且過程完成後，立即將氣瓶和設備從現場移走，並確保設備上的所有隔離閥門都已關閉。
  - k. 回收的製冷劑必須在填充到另一個製冷系統之前進行清潔和檢查。



## 標示

對設備進行標示，以指示其已退役並清空了製冷劑。標籤應包括日期和技術人員的簽名。對於具有易燃性製冷劑的設備，確保標籤明確標示該設備含有易燃性製冷劑。

## 回收

- **使用適當的氣瓶：**將製冷劑轉移至指定的回收氣瓶中。確保有足夠的氣瓶容納整個系統的製冷劑量。每個氣瓶必須標記其所裝載的特定製冷劑，並配備壓力釋放閥和功能正常的關閉閥。空氣瓶應在使用前進行排空，並在可能的情況下進行冷卻。
- **檢查設備：**確保回收設備運作良好，並適用於所有製冷劑，包括可燃性製冷劑(如適用)。準備好操作說明和校準過的秤。使用具有無漏氣快拆接頭的軟管。檢查回收機器是否維護良好，並且任何電氣部件均已密封，以防止引燃。如有任何疑問，請諮詢製造商。
- **返回製冷劑：**將回收的製冷劑放入正確的回收氣瓶中並安排廢物轉移單。切勿在回收裝置或氣瓶中混合不同的製冷劑。
- **處理壓縮機和油：**如果需要移除壓縮機或壓縮機油，確保先排空以去除潤滑劑中的可燃性製冷劑。僅使用電加熱來加此過程。安全排放油。

通過遵守這些指導方針，您可以確保製冷劑回收的安全和有效性。

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The Whirlpool logo, featuring the word "Whirlpool" in a bold, sans-serif font, with a stylized swirl graphic integrated into the letter "p".