



## USER'S MANUAL

# U-SHAPED WINDOW AIR CONDITIONER



Models  
1PACU8000  
1PACU10000  
1PACU12000

ENGLISH

**IMPORTANT NOTE:**  
Before using your air conditioner, please read this manual carefully and keep it for future reference.

# CONTENTS

Important Safety Instructions .....	3
Installation Instructions .....	14
Normal Sounds .....	20
Air Conditioner Features .....	21
Care and Cleaning .....	26
Troubleshooting Tips .....	27

# IMPORTANT SAFETY INSTRUCTIONS

## READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner. You'll find many answers to common problems in the chart of **Troubleshooting Tips**. If you review our chart of **Troubleshooting Tips** first, you may not need to call for service at all.

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage. The seriousness is classified by the following indications.



## WARNING

This symbol indicates the possibility of death or serious injury.



## CAUTION

This symbol indicates the possibility of injury or damage to property.



## WARNING

- Plug in power plug properly. Otherwise, it may cause electric shock or fire due to excess heat generation. Do not operate or stop the unit by inserting or pulling out the power plug. It may cause electric shock or fire due to heat generation. Do not damage or use an unspecified power cord. It may cause electric shock or fire. If the power cord is damaged, it must be replaced by the manufacturer or an authorized service center or a similarly qualified person in order to avoid a hazard. .
- Always install circuit breaker and a dedicated power circuit. Incorrect installation may cause fire and electric shock. Do not operate with wet hands or in damp environment. It may cause electric shock. Do not direct airflow at room occupants only. This could damage your health. Always ensure effective grounding. Incorrect grounding may cause electric shock. Do not allow water to run into electric parts. It may cause failure of machine or electric shock. Do not modify power cord length or share the outlet with other appliances. It may cause electric shock or fire due to heat generation.
- Unplug the unit if strange sounds, smell, or smoke come from it. It may cause fire and electric shock. Do not use the socket if it is loose or damaged. It may cause fire and electric shock. Do not open the unit during operation. It may cause electric shock.
- Keep firearms away. It may cause fire. Do not use the power cord close to heating appliances.
- It may cause fire and electric shock. Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc. It may cause an explosion or fire. Ventilate the room before operating air conditioner if there is a gas leakage from another appliance. It may cause explosion, fire and, burns. Do not disassemble or modify unit. It may cause failure and electric shock.

## CAUTION

- When the air filter is to be removed, do not touch the metal parts of the unit. It may cause an injury. Do not put a pet or house plant where it will be exposed to direct air flow. This could injure the pet or plant. Ventilate the room well when used together with a stove, etc. An oxygen shortage may occur.
- Do not use strong detergent such as wax or thinner but use a soft cloth. Appearance may be deteriorated due to change of product color or scratching of its surface. Do not clean the air conditioner with water. Water may enter the unit and degrade the insulation. It may cause an electric shock. Do not use for special purposes. Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc. Stop operation and close the window in storm or hurricane. Operation with windows opened may cause wetting of indoor and soaking of household furniture. When the unit is to be cleaned, switch off, and turn off the circuit breaker. Do not clean unit when power is on as it may cause fire and electric shock, it may cause an injury. Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure. If bracket is damaged, there is concern of damage due to falling of unit.
- Always insert the filters securely. Clean filter once every two weeks. Operation without filters may cause failure. Hold the plug by the head of the power plug when taking it out. It may cause electric shock and damage. Turn off the main power switch when not using the unit for a long time. It may cause failure of product or fire.
- Do not place obstacles around air-inlets or inside of air-outlet. It may cause failure of appliance or accident. Do not place heavy object on the power cord and ensure that the cord is not compressed. There is danger of fire or electric shock. Do not drink water drained from air conditioner. It contains contaminants and could make you sick.
- Use caution when unpacking and installing. Sharp edges could cause injury.
- If water enters the unit, turn the unit off at the power outlet and switch off the circuit breaker. Isolate supply by taking the power-plug out and contact a qualified service technician.

## CAUTION

- 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.
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be installed in accordance with national wiring regulations.
- Do not operate your air conditioner in a wet room such as a bathroom or laundry room. The appliance with electric heater shall have at least 1meter space to the combustible materials.
- Contact an authorized service technician for repair or maintenance of this unit. Contact the authorized installer for installation of this unit.

### Note

The power supply cord with this air conditioner contains a current detection device designed to reduce the risk of fire. Please refer to the section **Operation of Current Device** for details. In the event that the power supply cord is damaged, it cannot be repaired. it must be replaced with a cord from the Product Manufacturer.

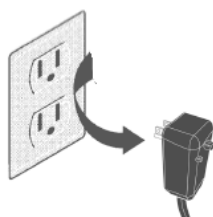


## **WARNING**

Avoid fire hazard or electric shock. Do not use an extension cord or an adaptor plug. Do not remove any prong from the power cord.

### **Grounding Type Wall Receptacle**

Do not, under any circumstances, cut, remove, or bypass the grounding prong. Power supply cord with 3-prong grounding plug and current detection device.



## **WARNING**

### **For Your Safety**

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### **Prevent Accidents**

To reduce the risk of fire, electrical shock, or injury to persons when using your air conditioner, follow basic precautions, including the following:

- Be sure the electrical service is adequate for the model you have chosen. This information can be found on the serial plate, which is located on the side of the cabinet and behind the grille.
- Clean both sides of glass before installing your air conditioner. If your window includes a screen, remove the screen completely before installation.
- Be sure the air conditioner has been securely and correctly installed according to the **Installation Instructions** in this manual. Save this manual for possible future use in removing or installing this unit.
- When handling the air conditioner, be careful to avoid cuts from sharp fins on front and rear coils.

### **Electrical Information**

The complete electrical rating of your new room air conditioner is stated on the serial plate. Refer to the rating when checking the electrical requirements.

- Be sure the air conditioner is properly grounded. To minimize shock and fire hazards, proper grounding is important. The power cord is equipped with a three-prong grounding plug for protection against shock hazards.
- Your air conditioner must be used in a properly grounded wall receptacle. If the wall receptacle you intend to use is not adequately grounded or protected by a time delay fuse or circuit breaker, have a qualified electrician install the proper receptacle. Ensure the receptacle is accessible after the unit installation.
- Do not run air conditioner without side protective cover in place. This could result in mechanical damage within the air conditioner.
- **Do not use an extension cord or an adapter plug.**

## Operation of GFCI Device

The power supply cord contains a ground fault circuit interrupter (GFCI) device that senses damage to the power cord. To test your power supply cord, do the following:

1. Plug in the Air Conditioner.
2. The power supply cord will have TWO buttons on the plug head. Press the TEST button, you will notice a click as the RESET button pops out.
3. Press the RESET button, again you will notice a click as the button engages.
4. The power supply cord is now supplying electricity to the unit.  
(On some products this is also indicated by a light on the plug head.)

### Note

Do not use this device to turn the unit on or off. Always make sure the **RESET** button is pushed in for correct operation. The power supply must be replaced if it fails reset when either the **TEST** button is pushed, or it cannot be reset. A new one can be obtained from the product manufacturer. If power supply cord is damaged, it cannot be repaired. It **MUST** be replaced by one obtained from the product manufacturer.

**This air conditioner is designed to be operated under condition as follows:**

Cooling Operation	Outdoor Temperature	64 - 109°F / 18 - 43°C (64 - 125°F / 18 - 52°C for special tropical models)
	Indoor Temperature	60 - 90°F / 16 - 32°C

### Please Note

Performance may be reduced outside of these operating temperatures.

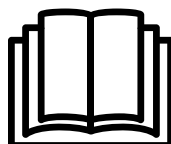
## WARNING (For using R290/R32 refrigerant only)

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance) and ignition sources or (for example: an operating electric heater) close to the appliance. The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that the refrigerants may not contain an odor.
- Compliance with national gas regulations shall be observed.
- Keep ventilation openings clear of obstruction.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- A warning that the appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.

- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification.
- Servicing should only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- DO NOT modify the length of the power cord or use an extension cord to power the unit.
- DO NOT share a single outlet with other electrical appliances. Improper power supply can cause fire or electrical shock.
- Please follow the instructions carefully to handle, install, clear, service the air conditioner to avoid any damage or hazard. Flammable Refrigerant R32 is used within the air conditioner. When maintaining or disposing the air conditioner, the refrigerant (R32 or R290) should be recovered properly and should not be discharged into the air directly.
- DO NOT have any open fire or device-like switch which may generate a spark/arcing around the air conditioner to avoid causing ignition of the flammable refrigerant used.
- Please follow the instructions carefully to store or maintain the air conditioner to prevent mechanical damage from occurring.
- Flammable refrigerant - R32 is used in air conditioner. Please follow the instructions carefully to avoid any hazard.







**CAUTION:** Risk of fire/flammable materials (Required for R32/R290 units only)



**IMPORTANT NOTE:** Read this manual carefully before installing or operating your new air conditioning unit. Make sure to save this manual for future reference.

Explanation of symbols displayed on the unit (For units with R32/R290 Refrigerant only)

	<b>WARNING</b>	This symbol shows that this appliance used a flammable refrigerant. If the refrigerant is leaked and exposed to an external ignition source, there is a risk of fire.
	<b>CAUTION</b>	This symbol shows that the operation manual should be read carefully.
	<b>CAUTION</b>	This symbol shows that a service professional should be handling this equipment with reference to the installation manual.
	<b>CAUTION</b>	This symbol shows that information is available such as the operation manual installation manual.

## **WARNING**

(For using R290/R32 refrigerant only)

### **Transport of equipment containing flammable refrigerants**

- See transport regulations.

### **Marking of equipment using signs**

- See local regulations.

### **Disposal of equipment using flammable refrigerants**

- See national regulations.

### **Storage of equipment/appliances**

- The storage of equipment should be in accordance with the manufacturer's instructions.

### **Storage of packed (unsold) equipment**

- Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge.
- The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

### **Information on servicing**

#### **1. Checking the area**

- Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

#### **2. Work procedure**

- Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.

#### **3. General work area**

- All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

#### **4. Checking for presence of refrigerant**

- The area should be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

#### **5. Presence of a fire extinguisher**

- If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO<sub>2</sub> fire extinguisher adjacent to the charging area.

#### **6. No ignition sources**

- No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. No Smoking signs shall be displayed.



## WARNING

(For using R290/R32 refrigerant only)

### 7. Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

### 8. Checks to the refrigeration equipment

- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.
- The following checks shall be applied to installations using flammable refrigerants:
  - The charge size is in accordance with the room size within which the refrigerant containing parts are installed.
  - The ventilation machinery and outlets are operating adequately and are not obstructed.
  - If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
  - Marking to the equipment continues to be visible and legible. Markings and signs that are illegible should be corrected.
  - Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

### 9. Checks to electrical devices

- Repair and maintenance to electrical components should include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution should be used. This should be reported to the owner of the equipment, so all parties are advised.
  - Initial safety checks should include:
    - That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking.
    - That there no live electrical components and wiring are exposed while charging, recovering or purging the system.
    - That there is continuity of earth bonding.



## WARNING

(For using R290/R32 refrigerant only)

### 10. Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected. This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
- Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts should be in accordance with the manufacturer's specifications.

### Note

The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment. Intrinsically safe components do not have to be isolated prior to working on them.

### 11. Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use. Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating.
- Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

### 12. Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

### 13. Detection of flammable refrigerants

- Under no circumstances, should potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) should not be used.



## WARNING

(For using R290/R32 refrigerant only)

### 14. Leak detection methods

- The following leak detection methods are deemed acceptable for systems containing flammable refrigerants. Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment should be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment should be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.
- Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipework.
- If a leak is suspected, all naked flames should be removed/ extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant should be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) should then be purged through the system both before and during the brazing process.

### 15. Removal and evacuation

- When breaking into the refrigerant circuit to make repairs or for any other purpose conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. Opening of the refrigeration systems should not be done by brazing.
- The following procedure shall be adhered to:
  - Remove refrigerant
  - Purge the circuit with inert gas
  - Evacuate
  - Purge again with inert gas
- Open the circuit by cutting or brazing.
- The refrigerant charge should be recovered into the correct recovery cylinders. The system should be flushed with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task.
- Flushing should be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system.
- When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipework are to take place.
- Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.



## WARNING

(For using R290/R32 refrigerant only)

### 16. Charging procedures

- In addition to conventional charging procedures, the following requirements should be followed. Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines should be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders should be kept upright.
- Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not already).
- Extreme care should be taken not to overfill the refrigeration system.
- Prior to recharging the system, it should be pressure tested with OFN. The system should be leak tested on completion of charging but prior to commissioning. A follow up leak test should be carried out prior to leaving the site.

### 17. Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample should be taken in case analysis is required prior to re-use of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.
  - Become familiar with the equipment and its operation.
  - Isolate the system electrically.
  - Before attempting the procedure ensure that:
    - When breaking into the refrigerant circuit to make repairs or for any other purpose, conventional procedures should be used.
    - Mechanical handling equipment is available, if required, for handling refrigerant cylinders.
    - Personal protective equipment is available and being used correctly.
    - The recovery process is supervised at all times by a competent person.
    - Recovery equipment and cylinders conform to the appropriate standards.
  - Pump down refrigerant system, if possible.
  - If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
  - Make sure that cylinder is situated on the scales before recovery takes place.
  - Start the recovery machine and operate in accordance with manufacturer's instructions. Do not overfill cylinders. (No more than 80 % volume liquid charge).
  - Do not exceed the maximum working pressure of the cylinder, even temporarily.
  - When the cylinders have been filled correctly and the process is completed, make sure that the cylinders and the equipment are removed from the site promptly and all isolation valves on the equipment are closed off.
  - Recovered refrigerant should not be charged into another refrigeration system unless it has been cleaned and checked.





## WARNING

(For using R290/R32 refrigerant only)

### 18. Labelling

- Equipment should be labelled stating that it has been de-commissioned and emptied of refrigerant. The label should be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

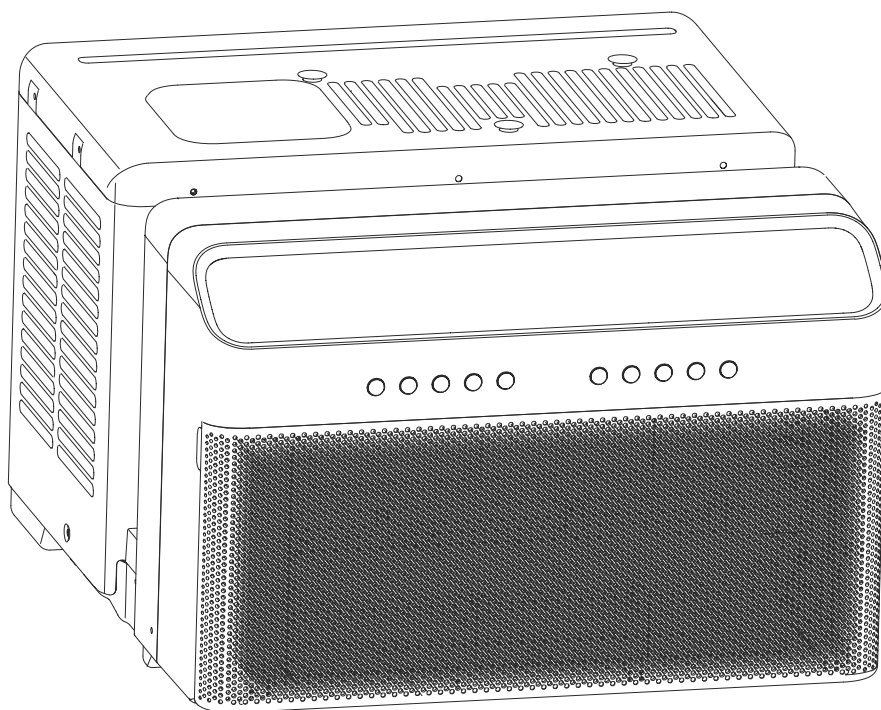
### 19. Recovery

- When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order.
- Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.
- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged. Do not mix refrigerants in recovery units and especially not in cylinders. If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body should be employed to accelerate this process. When oil is drained from a system, it should be carried out safely.

# INSTALLATION INSTRUCTIONS

## Note

The unit you purchased may look like the following. All the illustrations in this manual are for explanation purposes only. The air conditioner you have may be slightly different.

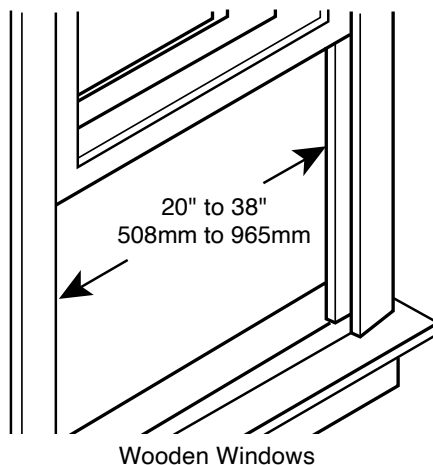


## BEFORE YOU BEGIN

- Read these instructions completely and carefully.
- **IMPORTANT** - Save these instructions for local inspector's use.
- **IMPORTANT** - Observe all governing codes and ordinances.
- **Note to Installer** - Be sure to leave these instructions with the Consumer.
- **Note to Consumer** - Keep these instructions for future reference.
- **Skill level** - Installation of this appliance requires basic mechanical skills.
- **Completion time** - Approximately 1 hour.
- We recommend that two people install this product.
- Proper installation is the responsibility of the installer.
- Product failure due to improper installation is not covered under the warranty.
- You **MUST** use all supplied parts and use proper installation procedures as described in these instructions when installing this air conditioner.

## WINDOW REQUIREMENTS

Your air conditioner is designed to install in standard double hung windows with opening widths of 20 to 38 inches (508mm to 965mm).



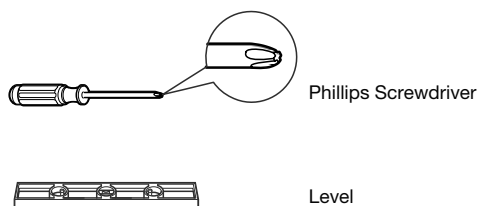
## CAUTION

- Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.
- Do not change the plug on the power cord of the air conditioner.
- Aluminum house wiring may present special problems - consult a qualified electrician.
- When handling unit, be careful to avoid cuts from sharp metal edges and aluminum fins on front and rear coils.

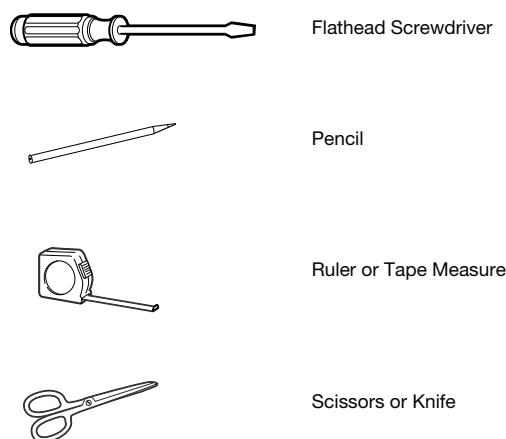
### Note

If there is interference between the shaft and the window, seal it with a sponge.

## TOOLS YOU WILL NEED



## TOOLS YOU MAY USE



### 1. PREPARE THE WINDOW

Lower sash must open sufficiently to allow a clear vertical opening of 13 inches (330mm). Side louvers and the rear of the AC must have clear air space to allow enough air ow through the condenser, for heat removal. The rear of the unit must be outdoors, not inside a building or garage.

#### Note

Save the carton and these **Installation Instructions** for future reference.

### 2. PREPARE THE AIR CONDITIONER

Remove the air conditioner and hardware from the carton and place on a flat surface.

	Self-tapping Screw (ST3.9 x 10)	6
	Self-tapping Screw (ST3.9 x 6.5)	4
	Flat Head Bolt and Locknut	2
	Snap Ring	2
	Support Bracket	1
	Sealed Sponge	2

## 3. ASSEMBLE THE SUPPORT BRACKET

Connect the retaining plate and support rail via snaps. Fix the horizontal support plate to the main support connection plate with screws. See Figure 1.

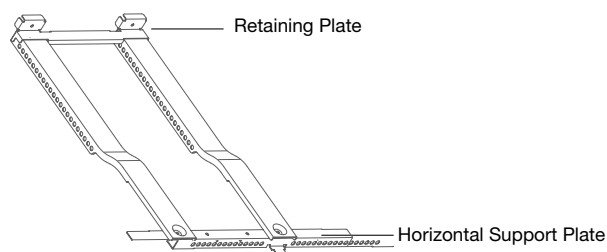


Figure 1

Attach Legs: Slide leg into support rail while pressing BOTH spring button. Release the button so that it extends out from the inner or outer hole of support rail. Repeat for second leg. See Figure 2.

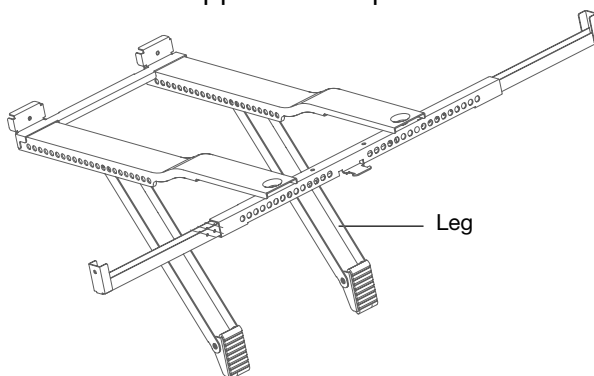


Figure 2

Prepare Sill Stop Wings: Slide wings (left and right) onto frame. See Figure 3.

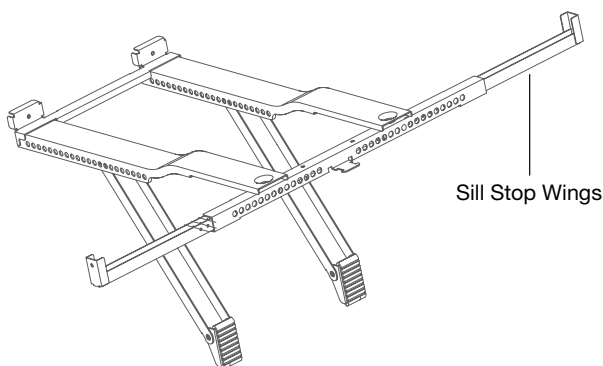


Figure 3

## 4. INSTALL THE SUPPORT BRACKET

- Adjust the bracket until the sliding leg is firmly secure against exterior surface.
- Place in window.
- Rest bracket on the bottom sill. Adjust each sill stop wing until it reaches the outermost side of the window frame.
- Connect the horizontal support plate and the sill stop wings by bolts. See Figure 4.

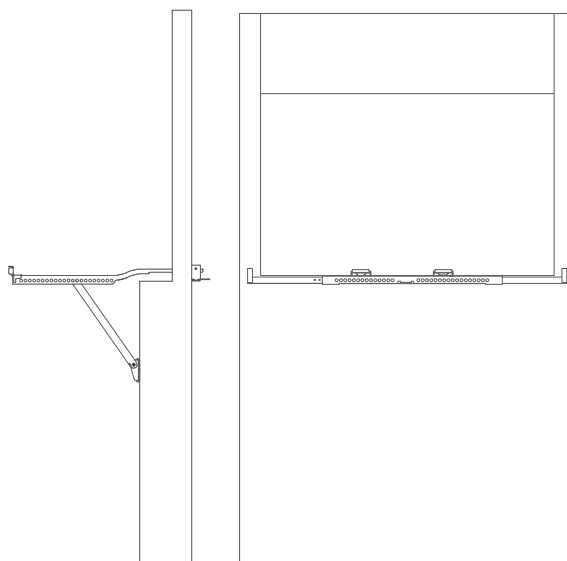


Figure 4A

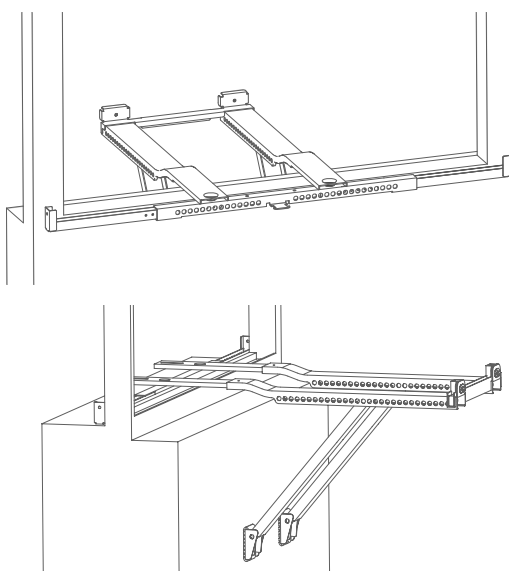


Figure 4B

## 5. INSTALL AC

A. Place the AC unit on support bracket: Align the window to the grooved part of the unit. See Figure 5.

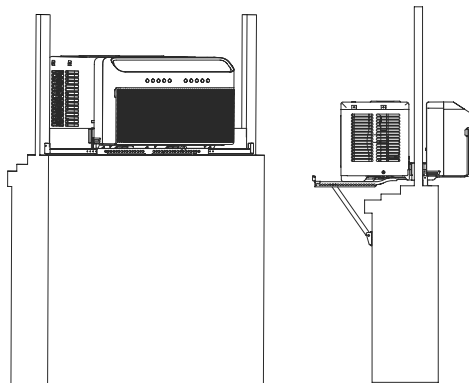


Figure 5

B. Fasten the AC with the L plate. See Figure 6.

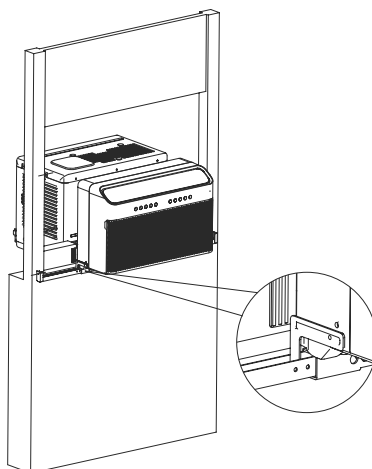


Figure 6

C. Cut the sealed sponge to proper length for sealing the space between the window and unit. See Figure 7.

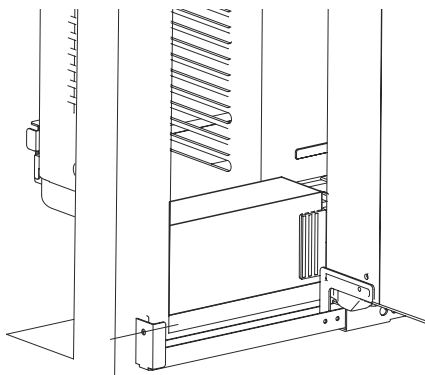


Figure 7

D. Close the window.

# NORMAL SOUNDS

## High-Pitched Chatter

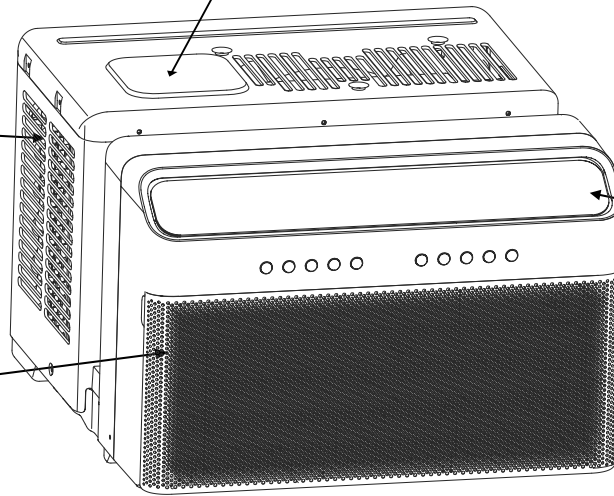
High efficiency compressors may have a high-pitched chatter during the cooling cycle.

## Pinging or Switching

Droplets of water hitting condenser during normal operation may cause “pinging or swishing” sounds.

## Gurgle/Hiss

“Gurgling or hissing” noise may be heard due to refrigerant passing through evaporator during normal operation.



## Sound of Rushing Air

At the front of the unit, you may hear the sound of rushing air being moved by the fan.



# AIR CONDITIONER FEATURES

## **WARNING**

To reduce the risk of fire, electric shock, or injury to persons, read the **IMPORTANT SAFETY INSTRUCTIONS** before operating this appliance.

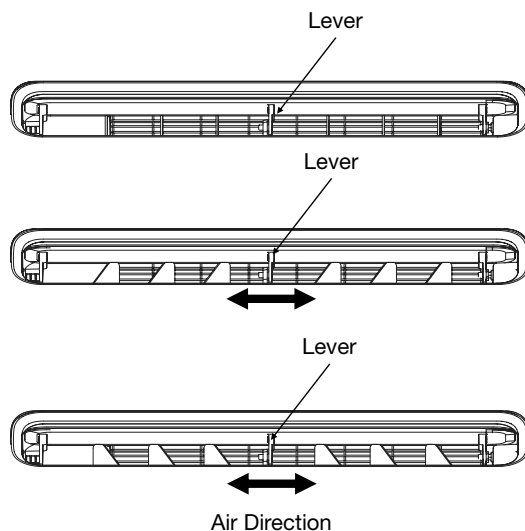
## **CAUTION**

Please always wait 3 minutes when turning unit off then on again, and when changing from cool to fan and back to cool. This prevents compressor from overheating & possible circuit breaker tripping.

**To begin operating the air conditioner, follow these steps:**

1. Set the thermostat to the highest number (coldest or cooler setting).
2. Set the selector control to the highest COOL setting.
3. Adjust the louver for comfortable air flow (see Air Directional Louvers).
4. Once the room has cooled, adjust the thermostat to the setting you find most comfortable.
5. Make sure that the air flow inside and outside are not obstructed by anything.

## **Air Directional Louvers**

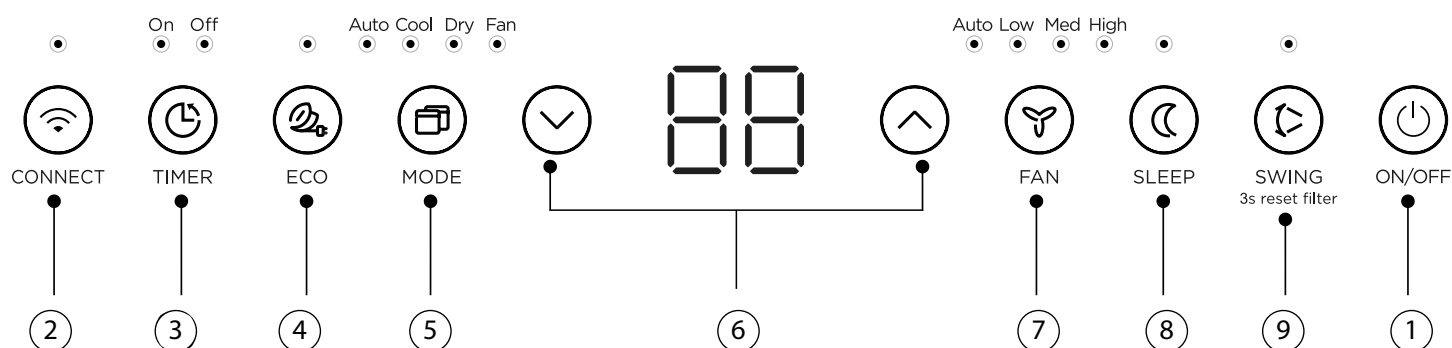


The louvers will allow you to direct the airflow Up or Down (on some models) and Left or Right throughout the room as needed. Pivot horizontal louvers until the desired Up/Down direction is obtained. Move the lever(s) from side to side until the desired Left/Right direction is obtained.







## ELECTRONIC CONTROL OPERATING INSTRUCTIONS

### Note

Different models have different control buttons and indicator lights. Not all the control buttons and indicator lights describing below are available for the unit you purchased. Please check the control panel of the unit you purchased. **The unit can be controlled by the unit control alone or with the remote.**

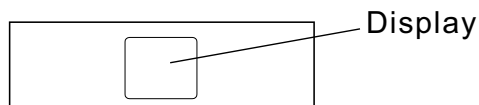


#	ITEM	DESCRIPTION
1	<b>ON/OFF</b> Button	<ul style="list-style-type: none"> <li>Press  ON/OFF button to turn unit on or off. <b>Note:</b> The unit will initiate automatically the Energy Saver function under <b>Cool</b>, <b>Dry</b> and <b>Auto</b> modes.</li> </ul>
2	<b>CONNECT</b> Button	<ul style="list-style-type: none"> <li>For the first time to use WLAN function, press the button for 3 seconds to initiate the WLAN connection mode. The LED DISPLAY shows 'AP' to indicate you can set WLAN connection. If connection (router) is successful within 8 minutes, the unit will exit WLAN connection mode automatically and the <b>CONNECT</b> indicator illuminates. If connection is failure within 8 minutes, the unit exits WLAN connection mode automatically. After WLAN connection is successful, you can press and hold <b>CONNECT</b> and <b>DOWN</b>  buttons at the same time for 3 seconds to turn off WLAN function and the LED DISPLAY shows 'OFF' for 3 seconds, press <b>CONNECT</b> and <b>UP</b>  buttons at the same time to turn on WLAN function and the LED DISPLAY shows 'ON' for 3 seconds.</li> </ul>
3	<b>TIMER</b> Button	<ul style="list-style-type: none"> <li>Press Timer button, the <b>TIMER ON</b> or <b>TIMER OFF</b> indicator light will illuminate. It indicates the Auto Start or Auto Stop program is initiated. For some units, keep pressing the Timer button will cancel the timer settings.</li> <li>Press or hold the <b>UP</b> or <b>DOWN</b> button to change the <b>Auto</b> time by 0.5-hour increments, up to 10 hours, then at 1-hour increments up to 24 hours. The control will count down the time remaining until start.</li> <li>The selected time will register in 5 seconds, and the system will automatically revert back to display the previous temperature setting or room temperature when the unit is on. (when the unit is off, there is no display.)</li> <li>Turning the unit <b>ON</b> or <b>OFF</b> at any time or adjusting the timer setting to 0.0 will cancel the <b>Auto Start/Stop</b> timed program.</li> </ul>

#	ITEM	DESCRIPTION
4	<b>ECO</b> Button	<ul style="list-style-type: none"> <li>Press ECO button to initiate this function. This function is available on <b>COOL, DRY, AUTO</b> (only AUTO-COOLING and AUTO-FAN) modes. The fan will continue to run for 3 minutes after the compressor shuts off. The fan then cycles on for 2 minutes at 10-minute intervals until the room temperature is above the set temperature, at which time the compressor turns back on and cooling starts.</li> </ul>
5	<b>MODE</b> Button	<ul style="list-style-type: none"> <li>To choose operating mode, press Mode button. Each time you press the button, a mode is selected in a sequence that goes from <b>Auto, Cool, Dry</b> and <b>Fan</b>. The indicator light beside will be illuminated and remained on once the mode is selected.</li> <li>The unit will initiate automatically the Energy Saver function under <b>Cool, Dry, Auto</b> (only Auto-Cooling and Auto-Fan) modes.</li> </ul> <p><b>To operate on AUTO feature:</b></p> <ul style="list-style-type: none"> <li>When you set the air conditioner in AUTO mode, it will automatically select cooling, or fan only operation depending on what temperature you have selected and the room temperature.</li> <li>The air conditioner will control room temperature automatically round the temperature point set by you.</li> <li>In this mode, the fan speed cannot be adjusted, it starts automatically at a speed according to the room temperature.</li> </ul> <p><b>To operate on COOL mode:</b></p> <ul style="list-style-type: none"> <li>Choose <b>Cool</b> Mode to set the cooling function. Use the Up and Down buttons to choose the desired temperature. When Cool Mode is selected, the fan speed can be adjusted by pressing the fan button.</li> </ul> <p><b>To operate on DRY mode:</b></p> <ul style="list-style-type: none"> <li>In this mode, the air conditioner will generally operate in the form of a dehumidifier. Since the conditioned space is a closed or sealed area, some degree of cooling will continue. On <b>Dry</b> mode, the automatic wind is not adjustable.</li> </ul> <p><b>To operate on FAN ONLY mode:</b></p> <ul style="list-style-type: none"> <li>Use this function only when cooling is not desired, such as for room air circulation or to exhaust stale air (on some models). (Remember to open the vent during this function, but keep it closed during cooling for maximum cooling efficiency.) You can choose any fan speed you prefer.</li> <li>In <b>Fan Only</b> mode, the temperature is not adjusted.</li> </ul>
6	  Button	<ul style="list-style-type: none"> <li>Press “” “” button to change temperature setting.  <b>Note:</b> Press or hold either “” “” button until the desired temperature is shown on the display.</li> <li>This temperature will be automatically maintained anywhere between 60°F (16°C) and 86°F (30°C).</li> <li>If you want the display to read the actual room temperature, see <b>Operate on Fan Only</b> section.</li> </ul>

#	ITEM	DESCRIPTION
7	<b>FAN</b> Button	<ul style="list-style-type: none"> <li>• <b>Fan</b> button to select the Fan Speed in four steps-<b>Auto, Low, Med or High</b>. Each time the button is pressed, the fan speed mode is shifted. For some models, the fan speed cannot be adjusted.</li> </ul>
8	<b>SLEEP</b> Button	<ul style="list-style-type: none"> <li>• Press <b>Sleep</b> button to initiate the sleep mode. In this mode the selected temperature will increase (cooling) by 2°F/1 (or 2)°C 30 minutes after the mode is selected. The temperature will then increase (cooling) by another 2°F/1 (or 2)°C after an additional 30 minutes. This new temperature will be maintained for 7 hours before it returns to the originally selected temperature. This ends the <b>Sleep</b> mode and the unit will continue to operate as originally programmed.</li> <li>• The <b>Sleep</b> mode program can be cancelled at any time during operation by pressing the <b>Sleep</b> button again.</li> </ul>
9	<b>SWING</b> Button	<ul style="list-style-type: none"> <li>• Used to initiate the Auto swing feature. When the operation is <b>ON</b>, press the <b>SWING</b> button can stop the louver at the desired angle.</li> <li>• Press <b>SWING</b> button for 3 seconds to initiate the filter feature. This feature is a reminder to clean the Air Filter for more efficient operation. The LED (the light above the button) will illuminate after 250 hours of operation.</li> </ul>

## Displays



Shows the set temperature in “ °C” or “ °F” and the Auto-timer settings. While on Fan only mode, it shows the room temperature. If the room temperature is too high or low, it will display “ HI” or “ LO”.

## Error Codes

- The unit may stop operation or continue to run safely. If the error codes appear, wait for about 10 minutes.
- The problem may resolve itself. If not, disconnect the power, then connect it again. Turn the unit on.
- If the problem persists, disconnect the power and contact your nearest customer service center.
- Error code appears and begins with the letters as the following in the window display of indoor unit:  
EH(xx), EL(xx), EC(xx) , PH(xx), PL(xx), PC(xx)

### Note

If the unit breaks off unexpectedly due to a power outage, it will restart with the previous function setting automatically when the power resumes.

## ADDITIONAL THINGS YOU SHOULD KNOW

Now that you have mastered the operating procedure, here are more features in your control that you should become familiar with.

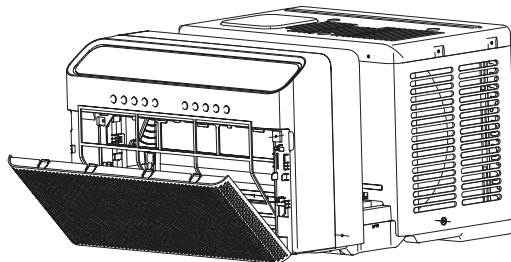
- The Cool circuit has an automatic 3 minutes time delayed start if the unit is turned off and on quickly. This prevents overheating of the compressor and possible circuit breaker tripping. The fan will continue to run during this time.
- The control is capable of displaying temperature in degrees Fahrenheit or degrees Celsius. To convert from one to the other, press and hold the Up and Down buttons at the same time for 3 seconds.

# CARE AND CLEANING

## CAUTION

Clean your air conditioner occasionally to keep it looking new. Be sure to unplug the unit before cleaning to prevent shock or fire hazards.

### Air Filter Cleaning



The air filter should be checked at least once a month to see if cleaning is necessary. Trapped particles in the filter can build up and cause an accumulation of frost on the cooling coils.

- Push the vent handle to the Vent Closed position (where applicable). Open the front panel.
- Take the filter by the center and pull up and out.
- Wash the filter using liquid dishwashing detergent and warm water.
- Rinse filter thoroughly.
- Gently shake excess water from the filter.
- Be sure the filter is thoroughly dry before replacing.
- Instead of washing, you may vacuum the filter clean.

#### Note

Never use hot water over 104°F (40°C) to clean the air filter. Never attempt to operate the unit without the air filter.

### Cabinet Cleaning

- Be sure to unplug the air conditioner to prevent shock or re hazard. The cabinet and front may be dusted with an oil-free cloth or washed with a cloth dampened in a solution of warm water and mild liquid dishwashing detergent. Rinse thoroughly and wipe dry.
- Never use harsh cleaners, wax or polish on the cabinet front. Be sure to wring excess water from the cloth before wiping around the controls.
- Excess water in or around the controls may cause damage to the air conditioner.
- Plug in air conditioner.

### Winter Storage

If you plan to store the air conditioner during the winter, remove it carefully from the window according to the installation instructions. Cover it with plastic or return it to the original carton.

# TROUBLESHOOTING TIPS

Before calling for service, review this list. It may save your time and expense. This list includes common occurrences that are not the result of defective workmanship or materials in this appliance.

Problem	Solution
Air conditioner does not start	Wall plug disconnected. Push plug firmly into wall outlet.
	House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.
	Plug current device has tripped. Press the <b>RESET</b> button.
	Power is OFF. Turn power ON.
Air from unit does not feel cold enough	Room temperature below 60°F (16°C). Cooling may not occur until room temperature rises above 60°F (16°C).
	Temperature sensing behind air filter element touching cold coil. Keep it from the cold coil.
	Set to a lower temperature.
	Compressor stopped when changing modes. Wait for 3 minutes after set to the <b>COOL</b> mode.
Air conditioner cooling, but room is too warm - Ice forming on cooling coil behind decorative front.	Outdoor temperature below 64°F (18°C). To defrost the coil, set <b>FAN ONLY</b> mode.
	Air filter may be dirty. Clean filter. Refer to <b>Care and Cleaning Section</b> . To defrost, set to <b>FAN ONLY</b> mode.
	Thermostat set too cold for night-time cooling. To defrost the coil, set to <b>FAN ONLY</b> mode. Then, set temperature to a higher setting.
Air conditioner cooling, but room is too warm- NO ice forming on cooling coil behind decorative front.	Dirty air filter - air restricted. Clean air filter. Refer to <b>Care and Cleaning Section</b> .
	Temperature is set too high, set temperature to a lower setting.
	Air directional louvers positioned improperly. Position louvers for better air distribution.
	Front of units is blocked by drapes, blinds, furniture, etc. - restricts air distribution. Clear blockage in front of unit.
	An open door, window, or register may allow cold air to escape. Close any doors, windows, or registers.
	The room may be too warm. Allow additional time to remove “Stored heat” from walls, ceiling, floor and furniture.
Air conditioner turns on and off rapidly	Dirty air filter – air restricted. Clean air filter.
	Outside temperature extremely hot. Set <b>FAN</b> speed to a higher setting to bring air past cooling coils more frequently.
Noise when unit is cooling	Air movement sound. This is normal. If too loud, set to a slower <b>FAN</b> setting.
	Window vibration – poor installation. Refer to <b>Installation Instructions</b> or check with installer.
Water dripping INSIDE when unit is cooling	Improper installation. Tilt air conditioner slightly to the outside to allow water drainage. Refer to <b>Installation Instructions</b> and check with installer.
Water dripping OUTSIDE when unit is cooling	Unit removing a large quantity of moisture from a humid room. This is normal during excessively humid days.
Remote sensing deactivating prematurely (some models)	Remote control not located within range. Place remote control within 20 feet and point it in the general direction of the air conditioner.
	Remote control signal obstructed. Remove obstruction.
Room too cold	Set temperature too low. Increase set temperature.
Noise when unit starts	A “da-da” sound may occur when the unit is turned on in 30 seconds due to the compressor starting (for inverter type). It is normal.

The design and specifications are subject to change without prior notice for product improvement.  
Consult with the sales agency or manufacturer for details.

Any updates to the manual will be uploaded to the service website, please check for the latest version.











Distributed By:  
Perfect Aire, LLC  
5401 Dansher Road  
Countryside, IL 60625

1220\_M558

844-4PA-AIRE | 844-472-2473  
[www.perfectaire.us](http://www.perfectaire.us)

Printed in China