

OWNER'S MANUAL

Thru-the-Wall Room Air-Conditioner

Cool Only PTTC09C-1 PTTC12C-1 Cool w/Elect. Heat PTTE09C-1 PTTE12C-1 Heat Pump PTTH09C-1 PTTH09C-1 PTTH12C-1

Thank you for choosing our product. Please read this Owner's Manual carefully before operation and retain it for future reference.

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This symbol stands for the items should be forbidden



This symbol stands for the items should be followed

The figures in this manual may be different with the material objects, please refer to the material objects for reference.

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).



Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

Explanation of Symbols



This symbol indicates the possibility of death or serious injury.

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

NOTICE

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

Exception Clauses

Manufacturer will bear no responsibilities when personal injury or property loss is caused by the following reasons.

- 1.Damage the product due to improper use or misuse of the product;
- 2.Alter, change, maintain or use the product with other equipment without abiding by the instruction manual of manufacturer;
- 3.After verification, the defect of product is directly caused by corrosive gas;
- 4.After verification, the defects are due to improper operation during transportation of product;
- 5.Operate, repair, maintain the unit without abiding by instruction manual or related regulations;
- 6.After verification, the problem or dispute is caused by the quality specification or performance of parts and components that produced by other manufacturers;
- 7. The damage is caused by natural calamities, bad using environment or force majeure.

If it needs to install, move or maintain the air conditioner, please contact dealer or local service center to conduct it at first. Air conditioner must be installed, moved or maintained by appointed unit. Otherwise, it may cause serious damage or personal injury or death.

When refrigerant leaks or requires discharge during installation, maintenance, or disassembly, it should be handled by certified professionals or otherwise in compliance with local laws and regulations.

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.

The refrigerant

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- To realize the function of the air conditioner unit, a special refrigerant circulates in the system. The used refrigerant is the fluoride R32, which is specially cleaned. The refrigerant is flammable and inodorous. Furthermore, it can lead to explosion under certain conditions. But the flammability of the refrigerant is very low. It can be ignited only by fire.
- Compared to common refrigerants, R32 is a nonpolluting refrigerant with no harm to the ozonosphere. The influence upon the greenhouse effect is also lower. R32 has got very good thermodynamic features which lead to a really high energy efficiency. The units there fore need a less filling.

WARNING

- Appliance filled with flammable gas R32
- Appliance shall be installed, operated and stored in a room with a floor area larger than 4m².
- 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.)
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Ducts connected to an appliance shall not contain an ignition source.
- Keep any required ventilation openings clear of obstruction.
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.
- Do not use means to accelerate the defrosting process or to clean,other than those recommended by the manufacturer.
- Servicing shall be performed only as recommended by the manufacturer.

- Should repair be necessary, contact your nearest authorized Service Centre. Any repairs carried out by unqualified personnel may be dangerous.
- Compliance with national gas regulations shall be observed.
- Read specialist's manual.



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Safety precautions



- 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.
- Before operation, please confirm whether power specification complies with that on nameplate.
- Before cleaning or maintaining the air conditioner, please turn off air conditioner and pull out the power plug.
- Make sure the power cord hasn't been pressed by hard objects.
- Do not pull or drag the power cord to pull out the power plug or move the air conditioner.
- Do not insert or pull out the power plug with wet hands.
- Please use the grounded power. Make sure the grounding is reliable.
- If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualifified persons in order to avoid a hazard.
- If abnormal condition occurs (e.g. burned smell), please disconnect power at once and then contact local dealer.
- When nobody is taking care of the unit, please turn it off and remove the power plug or disconnect power.
- Do not splash or pour water on air conditioner. Otherwise, it may cause short circuit or damage to air conditioner.
- Prohibit operating heating equipment around the air conditioner.
- Prohibit operating the unit in the bathroom or laundry room.
- Far away from fire source, inflammable and explosive objects.
- Children and disabled people are not allowed to use the portable room air conditioner without supervision.
- Keep children from playing or climbing on the air conditioner.
- Do not put or hang dripping objects above the air conditioner.
- Do not repair or disassemble the air conditioner by yourself.

Safety precautions

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- Prohibit inserting any objects into the air conditioner.
- Do not through sundries into the air duct. If there are sundries get into the air duct, please contact the professionals to deal with it.
- Do not use an extension cord.
- Specification of fuse on the main board:T3.15AH250V;the maximum current passes through.
- The appliance shall be installed in accordance with national wiring regulations.
- The external static pressure is 0MPa for the air conditioner at the test position.
- The minimumm clearance from the appliance to combustible surface:1.5m.
- As for the mode with electric heating, the electric heater is installed at the back side of indoor evaporator.Please refer to the Service Manual for details.
- If a STATIONARY APPLIANCE is not fitted with a SUPPLY CORD and a plug, an all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

Operating Temperature Range						
	Indoor side DB/WB(°F/°C)	Outdoor side DB/WB(°F/°C)				
Maximum Cooling	90/73(32.2/22.8)	110/78(43.3/25.6)				
Maximum RC Heating	80/- (26.7/ -)	75/65 (23.9/18.3)				
Maximum Electric Heating	77/ - (25/-)	77/ - (25/-)				

Operation environment

Ambient temperature range (indoor temperature) for cooling is 64-90°F(18-32.2°C), Ambient temperature range (outdoor temperature) for cooling is 64-110°F(18-43.3°C), Ambient temperature range (indoor temperature) for heat pump is 41-80°F(5-26.7°C), Ambient temperature range (outdoor temperature) for heat pump is 55-75°F(13-23.9°C), Ambient temperature range (outdoor temperature) for Electric Heating is 19-77°F(-7-25°C).

Safety Precautions

NOTICE 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.



A 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.
- 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.

A WARNING Electrical Information

- 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.
- 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 Current Device

The power supply cord contains a current 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 it also indicated by a light on the plug head.)

NOTES:

- 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.Please contact Customer Service.
- If power supply cord is damaged, it cannot be repaired. It MUST be replaced with a new cord please contact Customer Service.



IMPORTANT NOTE TO THE OWNER

This equipment is to be serviced by professionally trained personnel only. If this equipment is improperly installed, adjusted or altered by an unqualified person, a safety hazard may result.

IMPORTANT NOTE TO THE SERVICER

Read this manual and familiarize yourself with the specific items which must be adhered to before attempting to service this unit. The precautions listed in this manual should not supersede existing practices but should be considered as supplemental information.

TRANSPORTATION DAMAGE

All units are securely packed in shipping containers approved by the National Safe Transit Association. The carton should be checked upon arrival for external damage. If damage is found, immediately make a written request for inspection by the carrier's agent.

In the event of damage:

- 1. Note on the delivery receipt any visible damage to shipment or container.
- 2. Notify carrier promptly and request an inspection.
- 3. File the claim with the following supporting documents within the six month statute of limitations.
 - a. Original Bill of Lading, certified copy, or indemnity bond.
 - b. Original paid freight bill or indemnity.
 - c. Original invoice or certified copy, showing trade and other discounts or reductions.
 - d. Copy of the inspection report issued by carrier's representative at the time damage is reported to the carrier.

The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

UNPACKING THE UNIT

1. Cut the carton banding and open the carton.

- 2. Remove the literature, hardware pack, upper styrofoam shipping blocks, and styrofoam corner posts.
- 3. Remove the front assembly.
- 4. Lift the unit from the remaining carton.
- 5. Dispose of the cardboard and styrofoam at an approved Recycle Center. Check all contents for damaged or missing parts. In case of concealed damage, notify the carrier as soon as possible—preferably within 5 days. Refer to step 3 of the Transportation Damage section if damage or missing parts are noted.

Electrical Requirements

Grounding Instructions

This appliance is equipped with a three-prong grounding plug for protection against possible shock hazards. If a two-prong

Unit Plug Type	Receptacle Required	Circuit Rating, Breaker, Tim Delay Fuse	Voltage Rating On Nameplate			
NEMA No. 5-15P	NEMA No. 5-15R	125V-15AMP	115V			
NEMA No. 6-15P	NEMA No. 6-15R	250V-15AMP	230/208V rated at 12 amperes or less			

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NEMA No. 6-20P	NEMA No. 6-20R	250V-20AMP	230/208V rated over 12 amperes, but not more than 16 amperes
NEMA No. 6-30P	NEMA No. 6-30R	250V-30AMP	208V rated over 16 amperes, but not more than 24 amperes

wall receptacle is encountered, the customer is required to contact a qualified electrician and have the two-prong wall receptacle replaced with a properly grounded three-prong wall receptacle in accordance with the National Electrical Code.

Room air conditioners are designed to operate according to requirements on the nameplate and as shown in Table 1. Fuse or circuit breaker ratings must be according to the fuse instruction label and as shown in Table 1. Do not plug models marked "Use on Single Outlet Circuit Only" into a circuit with another appliance or light fixture.

Power Supply Cord

NOTICE: Your unit's device may differ from the ones shown.





This room air conditioner is equipped with a power supply cord required by UL. This power supply cord contains state-of-the-art electronics that sense leakage current. If the cord is crushed, the electronics detect leakage current and power will be disconnected in a fraction of a second.

To test your power supply cord:

- 1. Plug power supply cord into a grounded 3 prong outlet.
- 2. Press RESET.
- 3. Press TEST (listen for click; Reset button will trip and pop out).
- 4. Press and release RESET (listen for click; Reset button will latch and remain in). The power supply cord is ready for operation.

NOTICE:

- The Reset button must be pushed in for proper operation.
- The power supply cord must be replaced if it fails to trip when the test button is pressed or fails to reset.
- Do not use the power supply cord as an off/on switch. The power supply cord is designed as a protective device.
- A damaged power supply cord must be replaced with a new power supply cord obtained from the product manufacturer and must not be repaired.
- The power supply cord contains no user serviceable parts. Opening the tamper-resistant case voids all warranty and performance claims.

WARNING

To prevent electrical shock, property damage, personal injury, or death, do not remove grounding prong from plug. Follow all operating instructions.

INSTALLATION INSTRUCTIONS

To ensure that the unit operates safely and efficiently, it must be installed, operated, and maintained according to these installation and operating instructions and all local codes and ordinances, or, in their absence, with the latest edition of the National Electrical Code. The proper installation of this unit is described in the following sections. Following the steps in the order presented should ensure proper installation.

How to install

Choose a location where there are no any obstacle surrounding the unit, and the plug is accessible.

Choose the installation space according to the following diagram.



The distance between the air conditioner 300mm and the around obstacles should meet the requirement as below: over 300mm(upper side), over 1220mm(downside), over 500mm(left side), over 500mm(right side), over 2000mm(front side) and over 500mm(rear side).

Sleeve installation

In order for condensate water to drain properly inside the unit, the sleeve must be installed properly:

- Level from right to left.
- A slight downward pitch from the indoor side to the outdoor side as shown in Figure 3.

Refer to the Installation Instructions supplied with the wall sleeve for a complete description of the installation procedure.

NOTE: Wall sleeve (TOC01) is not shipped with chassis and must be purchased separately.



CHASSIS INSTALLATION

1. Remove front grill. See Figure A.



Figure A

The front grill can be removed for more thorough cleaning or to make the model and serial numbers accessible. To remove, pull the filter out and remove the two grill screws



Pull the grill out from the bottom and lift up from the tabs on the top of the case.

2. Remove the grounding screw and wire next to the grounding symbol on right side of chassis control panel (Figure 3). Attach other end of ground wire to the hole in the bottom right side of the sleeve with #8 x 3/8" blunt point sheet metal screw. The hole on the sleeve is indicated by grounding symbol on the sleeve. Slide chassis part of the way into the sleeve and reattach the ground wire back to the hole on the right side on the control panel area next to the grounding symbol.



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Figure 3

3. Remove shipping pads inside air conditioner next to compressor. (See Figure B.)



Figure B

- 4. Carefully slide the chassis into the sleeve. Ensure that the ground wire is not pinched or in the path of the condenser fan.
- 5. Loosen locking plate screw and rotate tab with tab behind wall case flange (See Figure C) then tighten locking plate screw.



Figure C

6. If outlet is on the left side of the unit. route power cord as shown in Figure D.



Figure D



To replace front grille:





Figure 4

AIR DIRECTION:

Horizontal louvers on the front grill let you control the air direction up and down.

Hook the tabs on the front grill even with the tabs on the case and snap into place. Replace the screws and filter. Refer to Page 4, Figure A.

VENT CONTROL AND AIR DIRECTION (See Figure E) The vent control is located behind the front grill on the right side of the air discharge area. When set at CLOSE only the air inside the room will be circulated and conditioned. When set at OPEN, some inside air is exhausted outside.



OPEN position (Mesh end toward back)



CLOSE position (Mesh end toward front)

Figure E

To open or close the vent:

- 1. Remove the front grill.
- 2. Remove the vent card screw.
- 3. Remove the vent card, turn it over and replace it by locating rear hole in card over locating pin inside air discharge and reattaching screw at front.





Remove the front grill to adjust the vertical louvers side-toside to direct the air left or right.





Figure 5

IMPORTANT NOTES:

- 1. The unit is equipped with a rubber-grommet-mounted compressor. These grommets are factory set and require no adjustment.
- 2. Obstruction to air flow must be checked and removed. Check the indoor and outdoor grills for obstructions. The unit must be located where curtains, furniture, trees, or other objects do not block air flow to and from the unit. If air is obstructed and/or deflected back into the unit, the air conditioner's compressor may cycle on and off rapidly. This could cause damage to the compressor.

WIRING

Before wiring the unit, please review the following warnings and cautions.

— 🛕 WARNING —

To avoid the risk of electrical shock, personal injury or death, do not service this unit without first opening all disconnects and/or removing the unit cord set plug from the wall outlet.

WARNING —

To avoid the risk of electrical shock, personal injury, or property damage, do not use an extension cord with this unit.

WARNING -

To avoid the risk of fire, property damage, or personal injury, use only copper conductors.

To avoid the risk of personal injury, wiring to the unit must be properly polarized and grounded.

WARNING -

This air conditioner is not meant to provide unattended cooling or life support for persons or animals who are unable to react to the failure of this product.

The failure of an unattended air conditioner may result in extreme heat in the conditione^d space causing overheating or death of persons or animals. Take proper precautions to avoid unattended operation.





Notice:

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- When power is connected(stand by condition), you can operate the air conditioner through the remote controller.
- 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.
- This is a general use remote controller, it could be used for the air conditioners with multifunction; For some functions, which the model doesn't have, if you press the corresponding button on the remote controller that the unit will keep the original running status.

ON/OFF button

Press this button to turn unit on/off.

2 MODE button

AUTO ► COOL ► DRY ► FAN ► HEAT(Only for models with heating function.)

- When selecting auto mode, air conditioner will operate automatically according to ambient temperature. Set temperature can't be adjusted and won't be displayed either. Press FAN button to adjust fan speed.
- When selecting cool mode, air conditioner will operate under cool mode. Then press + or button to adjust set temperature. Press FAN button to adjust fan speed.
- When selecting dry mode, air conditioner will operate at low fan speed under dry mode. In dry mode, fan speed can't be adjusted.
- When selecting fan mode, air conditioner will operate in fan mode only. Then press FAN button to adjust fan speed.
- When selecting heat mode, air conditioner will operate under heat mode. Then press + or button to adjust set temperature. Press FAN button to adjust fan speed. (Cooling only unit can't receive heating mode signal. If set HEAT mode by remote controller, press ON/OFF button can't turn on the air conditioner.)

Note:The unit can only receive the signal for cool/fan/heat and it has no action when receiving the signal of other mode.

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+ / - button

- Pressing + or button once will increase or decrease set temperature by 1°F(°C). Hold + or - button for 2s, set temperature on remote controller will change quickly. Release the button after your required set temperature is reached.
- When setting Timer On or Timer Off, press + or button to adjust the time. (See TIMER Button for setting details)

FAN button

Pressing this button can select fan speed circularly as: AUTO, SPEED 1 (\square), SPEED 2 (\square), SPEED 3 (\square), SPEED 4 (\square).



Note:

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- Under Auto speed, air conditioner will select proper fan speed automatically according to ambient temperature.
- Fan speed can't be adjusted under Dry mode.
- SPEED 4 is not available for this model.

5 SWING button

Press this button to turn on up&down air swing. Note:Swing function is not available for this model.

6 SLEEP button

Under Cool, Heat and Dry mode, press this button to turn on Sleep function. Press this button to cancel Sleep function. Under Fan and Auto mode, this function is unavailable.

7 TIMER button

- When unit is on, press this button to set Timer Off. T-OFF and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer Off. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-OFF and H icon will stop blinking.
- When unit is off, press this button to set Timer On. T-ON and H icon will be blinking. Within 5s, press + or - button to adjust the time for Timer On. Pressing + or - button once will increase or decrease the time by 0.5h. Hold + or - button for 2s, time will change quickly. Release the button after your required set time is reached. Then press TIMER button to confirm it. T-ON and H icon will stop blinking.
- Cancel Timer On/Off: If Timer function is set up, press TIMER button once to review the remaining time. Within 5s, press TIMER button again to cancel this function.

Note:

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- Range of time setting is: 0.5~24h
- The interval between two motions can't exceed 5s, otherwise the remote controller will exit setting status.

Child lock function

Press "+" and "-" buttons simultaneously can turn on or turn off child lock function. When child lock function is started up, LOCK indicator on remote controller is ON. If you operate the remote controller, remote controller won't send signal.

Temperature display switchover function

Under OFF status, press "-" button and "MODE" button simultaneously can switch between °C and °F.

- **1.** After putting through the power, press "ON/OFF" button on remote controller to turn on the air conditioner.
- Press "MODE" button to select your required mode: AUTO, COOL, DRY, FAN, HEAT.
- **3.** Press "+" or "-" button to set your required temperature. (Temperature can't be adjusted under auto mode).
- **4.** Press "FAN" button to set your required fan speed: auto, low, medium and high speed.
- **5.** Press "SWING" button to select fan blowing angle.
 - 1. Press the back side of remote controller on the spot marked with " in and then push out the cover of battery box along the arrow direction.
 - Replace two No.7 (AAA 1.5V) dry batteries and make sure the positions of + and- polar are correct.



3. Reinstall the cover of battery box.

NOTICE

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

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AUXILIARY CONTROLS-DIP SWITCHES

The auxiliary dip switch controls are located behind the room cabinet-as shown in this figure.

The owner is responsible for checking switches and ensuring they are in the desired position.



Filter Reminder Function

When this switch is enabled (*DOWN*), an LED will light up the user interface after 250 hrs of accumulated fan run time. It serves as a reminder to clean the filter. When this switch is disabled (*UP*), the function is disabled. The default setting is *DOWN* (enabled).

Tempureture limitation function

When this switch is disabled (*DOWN*), the setting temp range from 61°F to 86°F. When this switch is enabled (*UP*), the setting temp range from 65°F to 86°F in cooling and 61°F to 78°F in heating. The default setting is *DOWN* (disabled). Display always shows full range(61°F (16°C) to 86°F (30°C)).

Fan Cycle/Continuous - Cool

When this switch is enabled (*DOWN*), it allows the indoor fan to cycle on/off with the compressor. When this switch is disabled (*UP*), it allows the indoor fan to run continuously. The default setting is *DOWN* (fan cycle).

Fan Cycle/Continuous - Heat

When this switch is enabled (*DOWN*), it allows the indoor fan to cycle on/off with the heater or the compressor operation. When this switch is disabled (*UP*), it allows the indoor fan to run continuously. The default setting is *DOWN* (fan cycle).

Class 2 - Remote Thermostat

When this switch is enabled (*UP*), it allows the unit to operate with a Class 2 Remote Control Wall Thermostat. The unit controls are disabled. The default setting is *DOWN* (disabled).



AIR CONDITIONER FEATURES (continued)

TO TURN UNIT ON:



YOU WILL SEE :



TO CHANGE TEMPERATURE SETTING:



YOU WILL SEE :



Note: Tap or hold either $up(^{)}$ or down(v) button until the desired temperature is seen on display. This temperature will be automatically maintained anywhere between 61F (16°C) and 86F (30°C) for both cooling and heating modes. If you want the display to read the actual room temperature, "Select the fan only mode".



Note: The fan speed toautomatically set to the speed needed to provideoptimum comfort settings with the set temperature. If the room needs more cooling, the fan speed will automatically increase. If the room needs lesscooling, the fan speed will automatically decrease. Auto fan speed cannot be used when in the Fan Only mode.

YOU WILL SEE

LIGHT ON

AIR CONDITIONER FEATURES (continued)



Note: Use this function only when cooling is not desired, such as for room air circulation. You can choose any fan speed you prefer, EXCEPT AUTO FAN.During this function, the display will show the actual current temperature, not the set temperature as in the cooling mode.

TIMER-DELAY START/STOP FEATURE:



Note 1: For Delay Stop, the unit must be in the ON position.

Note 2: For Delay Start, the unit must be in the OFF position.

To adjust timer setting, tap or hold the UP arrow (^) or DOWN arrow (v) to change the delay time by 0.5 hour increments up to 10 hours, then by 1 hour increments up to 24 hours. The control will count down the timer remaining until start (8, 7.5, 7, etc.). After set Timer, the unit will enter into Timer mode by 5 seconds, then Timer light on, Set light off. In Timer mode: Set temperature and fan speed keeps previously set temperature and fan speed; Temperature display set temperature, no display if power turn off; Press Timer once, LED display remaining time of set time, LED return to set temperature by 5 seconds; When in Fan Only mode, LED only display room temperature, do not display set temperature. Turning the unit "ON" or "OFF" at any timer will cancel the Delay Start/Stop function. The delay Start/Stop feature will work until the unit either starts or stops. Once this has happened then the above steps have to be repeated again.

COOLING FEATURE (on some models):

LIGHT ON **YOU WILL SEE:** O AUTO O HEAT DO THIS: OHIGH ОH O HEAT O COOL O MED O ME 0 000 O LOW O FAN ONL O LOW O FAN ONL FAN SPEED FAN SPEED MODE (MODE] PRESS MODE BUTTON 0 0 0 0 (RESET FILTER) TIMER (RESET FILTER) TIMER POWER POWER SELECT COOL

Note: This feature can be used with any combination of FAN Speeds, Timer . When in the "Cool" Mode, the fan will run continuously while cool is needed. The temperature will automatically be maintained anywhere between 61°F (16°C) and 86°F (30°C). When the room set temperature is satisfied, the fan will cycle off and on to circulate and sample the room air. If the air conditioner is off and is then turned on while set to a Cool setting or if turned from a fan setting to a Cool setting, it may take approximately 3 minutes for the compressor to start and cooling to begin.



Note: This feature can be used with any combination of FAN Speeds, Timer . When in the "Heat" Mode, the fan will run continuously while heat is needed. The temperature will automatically be maintained anywhere between 61°F (16°C) and 86°F (30°C). When the room set temperature is satisfied, the fan will cycle off and on to circulate and sample the room air.

RESET FILTER:

YOU WILL SEE:

YOU WILL SEE:



Note:Under on status, if the accumulated operation time for time hasn't reach 250h, the clean indicator for the filter won't be on. Hold the RESET FILTER button for 3s to clear the accumulated operation time. At the same time, the buzzer will give out a sound; While if the accumulated operation time is up to 250h, the clean indicator of filter will be on. Press the RESET FILTER button to clear the accumulated operation time. Meanwhile, the buzzer will give out a sound.

TO TURN UNIT OFF:



a sensor has failed.

If the display reads "F4" a sensor has failed.

Preventative Maintenance

Qualification of workers

Qualification of the working personnel for maintenance, service and repair operations should according to UL 60335-2 -40、 CAN/CSA-C22.2 No. 60335-2-40-19 Annex HH.. Every working procedure that affects safety means shall only be carried out by competent persons according to Annex HH. Special training additionalto usual refrigerating equipment repair procedures is required when equipment with FLAMMABLE REFRIGERANTS is affected.

Electric schematic diagram

The electric schematic diagram are subject to change without notice. Please refer to which one on the unit.



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Aptitude requirement for maintenance man(repairs should be done only be specialists).

- a. 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 authorises their competence to handle refrigerants safely in accordance with an industry recognised assessment specification.
- b. Servicing shall 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.

Safety preparation work

The maximum refrigerant charge amount is shown on the following table a.

(Note:Please refer to the nameplate for the charging quantity of R32).

	Charge amount (kg)	≤0.921	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5
Minimum	floor location	/	14.5	16.8	19.3	22	24.8	27.8	31	34.3	37.8	41.5	45.4	49.4	53.6
room	window mounted	/	5.2	6.1	7	7.9	8.9	10	11.2	12.4	13.6	15	16.3	17.8	19.3
area(m ²)	wall mounted	/	1.6	1.9	2.1	2.4	2.8	3.1	3.4	3.8	4.2	4.6	5	5.5	6
	ceiling mounted	/	1.1	1.3	1.4	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.4	3.7	4



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

• Work procedure

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

• 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

• Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe. • Presence of 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 CO₂ fire extinguisher adjacent to the charging area.

No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work 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 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.

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.

• 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 actual refrigerant charge 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 shall 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

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are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

Checks to electrical devices

Repair and maintenance to electrical components shall 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 shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

--- That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;

--- That no live electrical components and wiring are exposed while charging, recovering or purging the system;

--- That there is continuity of earth bonding.

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 the apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

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. Note :

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

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.

Detection of flammable refrigerants

Under no circumstances shall 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) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems.

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of FLAMMABLE REFRIGERANTS, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall 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 shall 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 also 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 pipe-work.

NOTE Examples of leak detection fluids are

- bubble method,
- fluorescent method agents.

If a leak is suspected, all naked flames shall be removed/extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak. Removal of refrigerant shall be according to Clause Removal and evacuation.

Removal and evacuation

When breaking into the refrigerant circuit to make repairs – or for any other purpose –conventional procedures shall be used. However, for flammable refrigerants it is important that best practice be

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followed, since flammability is a consideration. The following procedure shall be adhered to:

a) safely remove refrigerant following local and national regulations;

- b) purge the circuit with inert gas;
- c) evacuate (optional for A2L);
- d) purge with inert gas (optional for A2L);
- e) open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems.

For appliances containing flammable refrigerants, refrigerants purging shall be achieved by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.

Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and that ventilation is available.

Charging procedures

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- 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 shall be taken not to overfill the refrigeration system.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas.

The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

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 shall be taken in case analysis is required prior to reuse of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.

- a) Become familiar with the equipment and its operation.
- b) Isolate system electrically.
- c) Before attempting the procedure, ensure that:
 - mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - all 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.
- d) Pump down refrigerant system, if possible.
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place.
- g) Start the recovery machine and operate in accordance with manufacturer's instructions.
- h) Do not overfill cylinders. (No more than 80 % volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

Labelling

Equipment shall be labelled stating that it has been decommissioned and emptied of refrigerant. The label shall be dated and signed. For appliances containing flammable refrigerants, ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

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

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that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge are 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 all appropriate refrigerants including, when applicable, 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 shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.



ADDITIONAL THINGS YOU SHOULD KNOW

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

• The Remote Control will operate all the control panel features, follow the same instructions.



The "Cool "circuit has an automatic 3 minute 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 will maintain any set temperature between 61°F and 86°F.
- 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 Temperature Selection Pads at the same time for 3 seconds.
- Instructions for installation and use of this product are provided by the manufacturer.

COMPRESSOR

The compressor is hermetically sealed, permanently lubricated and requires no additional oiling.

FRONT PANEL AND GRILLE

The front panel and grille can be cleaned with a mild soap or detergent. Do not use hydrocarbon-based cleaners (e.g. acetone, benzene, naphtha, gasoline, etc.) to clean the front panel or grille.Use care when cleaning the control areaDo not use an excessively wet cleaning cloth.

SCHEDULED MAINTENANCE

To achieve continuing top performance and high efficiency, a regular cleaning/inspection schedule must be established. Maintaining this schedule can be accomplished by either a local maintenance staff or an authorized servicer and must follow the instructions described in this manual.

- If the unit is operated in a dusty climate, dust may collect in the basepan and clog the condenser coil. It is advisable to remove the unit from the sleeve and thoroughly clean the basepan and condenser coil on a periodic basis.
- If the unit is installed ocean side or in a corrosive atmosphere, its life may be greatly reduced by the corrosive environment. Under these conditions, the unit should be removed from the sleeve and completely cleaned once a year. At that time any scratches or blisters on the painted surfaces should be sanded and repainted.

OUTDOOR COIL CLEANING

The coils on the outdoor side of the air conditioner should be checked regularly. For cleaning outside coil, remove the 6 screws that mount the condenser coil top cover to condenser shroud.



Normal Operating Sounds and Conditions

POPPING OR GURGLING SOUNDS

This sound is the refrigerant traveling through the lines. This is a normal sound which may be heard for a few seconds after the unit shuts off.

WATER TRICKLING SOUNDS

This sound is produced by the water as it is picked up and run over the coils. This procedure improves the efficiency of the unit and helps with water removal.

WATER DRIPPING

Water will collect in the basepan during high humidity days.

STARTING DELAY

You may notice a short delay in the startup if you try to restart the unit too soon after turning it off or if you adjust the thermostat right after the compressor has shut off. This delay protects the compressor.

Obtaining Service

In the unlikely event this unit requires repair or servicing beyond what is covered in this manual, contact an authorized service organization.

To obtain an authorized servicer, contact your sales representative or agency.

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LIMITED EXPRESS WARRANTY

Congratulations on purchasing your new HVAC equipment. It's been designed for long life and reliable service, and is backed by one of the strongest warranties in the industry. Your unit automatically qualifies for the warranty coverage listed below, providing you keep your proof of purchase (receipt) for the equipment and meet the warranty conditions.

LIMITED ONE (1) YEAR PARTS AND LABOR EXPRESS WARRANTY

Comfort-Aire/Century warrants all parts of the PTTC, PTTE, or PTTH to be free from defects in workmanship and materials for normal use and main-tenance for one (1) year from the date of purchase by the original con-sumer. Comfort-Aire/Century will also provide a one year labor allowance for approved warranty repairs. Any fees charged by a service technician above and beyond the amount authorized by Comfort-Aire/ Century will be the responsibility of the consumer. No reimbursement will be made for expenses incurred in making field adjustments or replacements unless specifically authorized by Comfort-Aire/Century.

LIMITED FIVE (5) YEAR SEALED SYSTEM WARRANTY

The sealed system consisting of the compressor, evaporator coil, condenser coil and connecting tubing is warranted to be free from defects in workmanship and materials for normal use and maintenance for four additional years, for a total of five (5) years, from the date of purchase by the original consumer.

LIMITED FIVE (5) YEAR FUNCTIONAL PARTS WARRANTY

Functional parts which consist of the fan motor, unit-mounted thermostats and thermisters, circuit boards, factory installed heaters and relays, unit blower wheel and fan propeller, reversing valve solenoid, and capacitor are warranted to be free from defects in workmanship and materials for normal use and maintenance for four additional years, for a total of five (5) years, from the date of purchase by the original consumer.

The express warranties described above apply only when the unit is installed and operated per Comfort-Aire/Century installation and operation instructions for normal use.

EXCEPTIONS

The Limited Express Warranty does not cover normal maintenance. Comfort-Aire/Century recommends that regular inspection/maintenance be performed at least once a season and proof of maintenance be kept. Additionally, labor charges (except as described in the Limited One Year Warranty paragraph), diagnostic charges, transportation charges for replacement parts, replacement of refrigerant or filters, and any other service calls/repairs are not covered by this Limited Warranty. It also does not cover any portion or component of the system that is not supplied by Comfort-Aire/Century, regardless of the cause of failure of such portion or component.

CONDITIONS FOR WARRANTY COVERAGE

- Unit must be operated according to Comfort-Aire/Century operating instructions included with the unit and cannot have been subjected to accident, alteration, improper repair, neglect or misuse, or an act of God (such as a flood)
- · Serial numbers and/or rating plate have not been altered or removed
- Performance cannot be impaired by use of any product not authorized by Comfort-Aire/Century, or by any adjustments or adaptations to components
- Damage has not been a result of inadequate wiring or voltage conditions, use during brown-out conditions, or circuit interruptions
- Air flow around any section of the unit has not been
 restricted
- Unit remains in the original installation
- · Unit was not purchased over the internet

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DURATION OF WARRANTY & REGISTRATION

The warranty begins on the date of purchase by the original consumer. The consumer must retain a receipted bill of sale as proof of warranty period. Without this proof, the express warranty begins on the date of shipment from the factory.

REMEDY PROVIDED BY THE LIMITED EXPRESS WARRANTY

The sole remedy under the Limited Warranty is replacement of the defective part. If replacement parts are required within the period of this warranty, Comfort-Aire/Century replacement parts shall be used; any warranty on the replacement part(s) shall not affect the applicable original unit warranty. Ready access to the unit for service is the owner's responsibility. Labor to diagnose and replace the defective part is not covered by this Limited Express Warranty. If for any reason the replacement part/product is no longer available during the warranty period, Comfort-Aire/Century shall have the right to allow a credit in the amount of the current suggested retail price of the part/product instead of providing repair or replacement.

LIMITATION OF LIABILITY

- There are no other express or implied warranties. Comfort-Aire/ Century makes no warranty of merchantability. We do not warrant that the unit is suitable for any particular purpose or can be used in buildings or rooms of any particular size or condition except as specifically provided in this document. There are no other warranties, express or implied, which extend beyond the description in this document.
- All warranties implied by law are limited in duration to the one-term of the parts warranty. Your exclusive remedy is limited to the replacement of defective parts. We will not be liable for any consequential or incidental damages caused by any defect in this unit.
- 3. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow limitation on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.
- No warranties are made for units sold outside the continental United States and Canada. Your distributor or final seller may provide a warranty on units sold outside these areas.
- Comfort-Aire/Century will not be liable for damages if our performance regarding warranty resolution is delayed by events beyond our control including accident, alteration, abuse, war, government restrictions, strikes, fire, flood, or other acts of God.

HOW TO OBTAIN WARRANTY SERVICE OR PARTS

First contact your installing contractor for service. If the installing contractor is not able to service the unit, contact our North American service provider at 1-866-557-1865. Have the model number, serial number, and date of purchase available for this call.

Owner responsibilities are set forth in the instruction manual—read it carefully.

KEEP THIS INFORMATION AS A RECORD OF YOUR PURCHASE						
PRODUCT IDENTIFICATION	INSTALLATION					
Model Number	Installer Name					
Serial Number	Phone Number/Contact Information					
Date of Purchase	Date Installation Completed					
□ Component of new HVAC system	Replacement only					
Remember to retain your bill of	sale as proof of warranty period.					

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.



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