

# Packaged Air Conditioner Units



## Owner's Guide to Operating and Maintaining Your Air Conditioner

### **⚠ WARNING**

**ELECTRICAL SHOCK HAZARD.**

Failure to follow this warning could result in personal injury, death, and/or property damage.

Disconnect power at fuse box or service panel before performing recommended maintenance.

### **⚠ WARNING**

**FIRE, EXPLOSION, ELECTRICAL SHOCK HAZARD.**

Failure to follow this warning could result in personal injury, death, and/or property damage.

Do not use this unit if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system which has been under water.

### **WARNING**

**FIRE OR EXPLOSION HAZARD**

Failure to follow safety warnings exactly could result in personal injury, death, and/or property damage.

Information in this manual **MUST** be followed exactly.

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

**This manual should be left with the owner.**


## SAFETY CONSIDERATIONS

Installation and servicing of this equipment can be hazardous due to mechanical and electrical components. Only trained and qualified personnel should install, repair, or service this equipment.

Untrained personnel can perform basic maintenance functions such as cleaning and replacing air filters. All other operations must be performed by trained service personnel. When working on this equipment, observe precautions in the literature, on tags, and on labels attached to or shipped with the unit and other safety precautions that may apply.

Follow all safety codes. Installation must be in compliance with local and national building codes. Wear safety glasses, protective clothing, and work gloves. Have fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit.

Recognize safety information. This is the safety-alert

symbol  When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand these signal words: DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

**Note:** Installer: This manual should be left with the equipment user.

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Before performing recommended maintenance, be sure the main power switch to unit is turned off and a lock-out tag is installed.

### CAUTION

#### CUT HAZARD

Failure to follow this caution could result in personal injury.

When removing access panels or performing maintenance functions inside your unit, be aware of sharp sheet metal parts and screws. Although special care is taken to reduce sharp edges to a minimum, be extremely careful when handling parts or reaching into the unit.

## OPERATING YOUR UNIT

The operation of your air conditioner system is controlled by the indoor thermostat. Your air conditioner system requires a thermostat with 2 stages of cooling (use of accessory electric heat will require at least 1 stage of heating). You simply adjust the thermostat and it maintains the indoor temperature at the level you select. Most thermostats of air conditioner systems have 3 controls: a temperature control selector, a FAN control, and a SYSTEM or MODE control. Refer to your thermostat owner's manual for more information.

To better protect your investment and to eliminate unnecessary service calls, familiarize yourself with the following facts:

To start the unit:

1. Turn on the electrical power supply to unit.
2. Set MODE control to desired mode and select temperature.

To shut off unit:

**Note:** If the unit is being shut down because of a malfunction, call your dealer as soon as possible.

1. Set system MODE control to OFF.
2. Turn off the electrical power supply to unit.

### Cooling Mode

With the SYSTEM or MODE control set to COOL, your unit will run in cooling mode until the indoor temperature is lowered to the level you selected. On extremely hot days, your unit will run more often on the high capacity stage. On mild days, your unit will run more often on low capacity stage for even greater energy savings.

When your air conditioner needs additional heat to keep you comfortable your thermostat will turn on the supplemental heat (if equipped).

### Accessory Electric Heat

If your unit contains accessory electric heat, the electric heat mode allows your unit to keep your home or office comfortable in the winter.

If your unit does not contain accessory electric heat and you would like to obtain it, please contact your local dealer for more information.

## MAINTENANCE AND SERVICE

This section discusses maintenance that should be performed by your dealer and care you, as the owner, may wish to handle for your new unit.

### Routine Maintenance

All routine maintenance should be handled by skilled, experienced personnel. Your dealer can help you establish a standard procedure.

To assure proper functioning of the unit, flow of condenser air must not be obstructed from reaching the unit. Clearance from the top of the unit is 48 in. (1219 mm). Clearance of at least 36 in. (914 mm) is required on sides except the duct side (12 in. minimum clearance) (305mm).

### Maintenance and Care for the Equipment Owner

Before proceeding with those things you might want to maintain yourself, please carefully consider the following:

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### Air Filters

The air filter(s) should be checked every 3 or 4 weeks and changed or cleaned whenever it becomes dirty. Dirty filters produce excessive stress on the blowermotor and can cause the motor to overheat and shut down.

This unit must have an air filter in place before it can be operated. These filters should be located in at least one of two places. In many applications, the installer will provide return air filter grilles mounted on the wall or ceiling of the conditioned structure. In the instance of filter grilles, the filters can simply be removed from the grille and replaced.

The other typical application is an accessory filter rack installed inside the unit itself. The following information is given to assist in changing filters used in these internal filter racks.

Table 1 indicates the correct indoor filter size for your unit. Refer to Fig. 1 to access filters installed in the accessory filter rack. If using an Accessory Filter Rack, refer to the Installation Instructions provided with it for correct filter sizes and quantities.

**Table 1—Air Filters Located Inside Unit  
(For Replacement Purposes)**

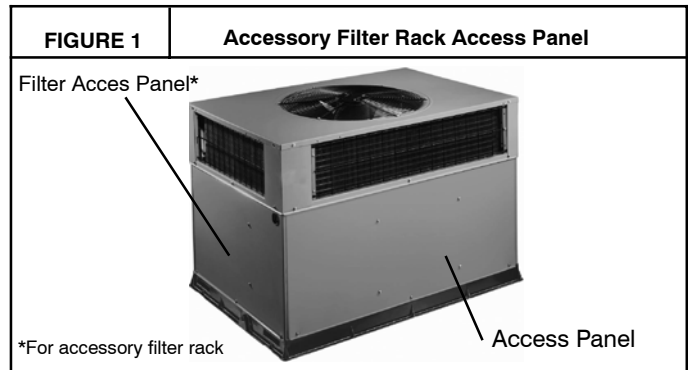
Model	Filter Size
PAN524	20x24x1 (508x610x25 mm)
PAN536	24x30x1 (610x762x25 mm)
PAN548-60	24x36x1 (610x914x25 mm)

To replace or inspect filters in accessory filter rack:

1. Remove the filter access panel (See Fig. 1) using a 5/16-in. nut driver.
2. Remove the filter(s) by pulling it out of the unit. If the filter(s) is dirty, clean or replace with a new one.

When installing the new filter(s), note the direction of the airflow arrows on the filter frame.

If you have difficulty locating your air filter(s) or have questions concerning proper filter maintenance, contact your dealer for instructions. When replacing filters, always use the same size and type of filter that was supplied originally by the installer.



## ⚠ WARNING

### UNIT OPERATION HAZARD

Failure to follow this warning could result in property damage.

Never operate your unit without filters in place. An accumulation of dust and lint on internal parts of your unit can cause loss of efficiency.

### Fans and Fan Motor

Periodically check the condition of fan wheels and housings and fan-motor shaft bearings. Contact your dealer for the required annual maintenance.

### Outdoor Coils

Cleaning of the coils should only be done by qualified service personnel. Contact your dealer for the required annual maintenance.

### Condensate Drain

The drain pan and condensate drain line should be checked and cleaned at the same time the cooling coils are checked by your dealer.

### Compressor

All compressors are factory shipped with a normal charge of the correct type and quantity of refrigeration grade oil. A compressor should rarely require additional oil.

### Condenser Fan

## ⚠ WARNING

### PERSONAL INJURY AND UNIT DAMAGE HAZARD

Failure to follow this warning could result in personal injury, death or property damage.

Do not poke sticks, screwdrivers, or any other object into revolving fan blades.

The fan must be kept free of all obstructions to ensure proper cooling. Contact your dealer for any required service.

### Electrical Controls and Wiring

Electrical controls are difficult to check without proper instrumentation. If there are any discrepancies in the operating cycle, contact your local dealer and request service.

### Refrigerant Circuit

The refrigerant circuit is difficult to check for leaks without the proper equipment. If inadequate cooling is suspected, contact your local dealer for service.

### Unit Panels

After performing any maintenance or service on the unit, be sure all panels are fastened securely in place to prevent rain from entering unit cabinet and to prevent disruption of the correct unit airflow pattern.

### **Regular Dealer Maintenance**

In addition to the type of routine maintenance you might be willing to perform, your unit should be inspected regularly by a properly trained service technician. An inspection (preferably each year, but at least every other year) should include the following:

1. Inspection and, if required, cleaning of the outdoor and indoor coils.
2. Inspection and, if required, cleaning of the indoor coil drain pan.
3. Inspection and cleaning of blower wheel housing and motor.
4. Inspection of all supply and return air ducts for leaks, obstructions, and insulation integrity. Any problems found should be resolved at this time.
5. Inspection of the unit base to ensure that no cracks, gaps, etc., exist which may cause a hazardous condition.
6. Inspection of the unit casing for signs of deterioration.
7. Inspection of all electrical wiring and components to assure proper connection.
8. Inspection for leaks in the refrigerant circuit. Pressure and temperature check to determine appropriate refrigerant charge.
9. Operational check of the unit to determine working conditions. Repair or adjustment should be made at this time.

Your servicing dealer may offer an economical service contract that covers seasonal inspections. Ask for further details.

Complete service instructions can be found in the unit Installation, Start -up and Service Instructions.

### **Warranty Certificate**

Your unit has a limited warranty. Be sure to read the warranty carefully to determine the coverage for your unit.

### **Before you call for service**

...check for several easily solved problems.

### **If insufficient heating or cooling is suspected:**

( ) Check for sufficient airflow. Check the air filter for dirt. Check for blocked return or supply air grilles. Be sure they are open and unobstructed. If these checks do not reveal the cause, call your servicing dealer.

### **If your unit is not operating at all, check the following list for easy solutions:**

( ) Check to be sure that your thermostat temperature selector is set below the indoor temperature during the cooling season or above the indoor temperature during heating season. Be sure the SYSTEM switch or MODE control is set to COOL or HEAT and not OFF.

( ) If your unit still fails to operate, call your servicing dealer for troubleshooting and repairs. Specify the model and serial numbers of your unit. (Record them in this manual in the space provided.) If the dealer knows exactly which unit you have, he may be able to offer suggestions over the phone, or save valuable time through knowledgeable preparation for the service call.

### **In case of trouble**

If you perform the steps above and unit performance is still unsatisfactory, shut off the unit and call your dealer.