

User's Information Manual: Outdoor Split-System Air Conditioning - Single-Phase

6765106-UUM-A-0826

About this manual

Read all sections of this manual and keep the manual for future reference.



WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov.

Contact information

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Certification



Assembled at a facility with
an ISO 9001:2015-certified
Quality Management
System



Third-party trademarks

Third-Party Trademarks Notice: For information about third-party trademarks, refer to the relevant company websites.

Safety

It is important to understand the safety symbols used in this manual. Read safety information carefully and follow all safety requirements.

Understanding safety symbols and instructions

 This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention to the signal words **DANGER**, **WARNING**, or **CAUTION**, as well as the **NOTICE**, **Important**, and **Note** alerts.

DANGER indicates an **imminently** hazardous situation, which, if not avoided, will result in death or serious injury.

WARNING indicates a **potentially** hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION indicates a **potentially** hazardous situation, which, if not avoided may result in minor or moderate injury. It is also used to alert against unsafe practices and hazards involving only property damage.

NOTICE indicates information considered important, but not hazard-related, such as messages relating to property damage.

Important indicates information that is essential to complete a task or may result in damage to the device if not followed.

Note indicates something of special interest or importance. Notes can contain any type of information except safety information.

Safety requirements



**REFRIGERANT SAFETY
GROUP A2L**

WARNING

Risk of fire

This unit uses a mildly flammable (A2L) refrigerant. The unit must only be repaired or serviced by trained service personnel. Before attempting to repair or service the unit, consult the *Installation Manual*. Follow all safety precautions.

How your system works

It is important to understand how your system works.

Cooling cycle

If your hand is wet and you blow on it, it feels cool because some of the moisture is evaporating and becoming a vapor. This process requires heat. The heat is being taken from your hand, so your hand feels cool. That is what happens with an air conditioner. During the cooling cycle, your system removes heat and humidity from your home and transfers this heat to the outdoor air.

Thermostat

Your thermostat controls the operation of your air conditioning or heat pump system. Thermostats may vary widely in appearance, but, regardless of size or shape, each thermostat includes the following:

- A temperature indicator
- A dial, arm, or push button for selecting the required temperature
- A fan switch for selecting the type of indoor fan operation
- A comfort switch for selecting the mode of system operation

If your air conditioning system provides cooling only (AC), with no capability for heating operation (heat pump), then a cooling only thermostat, with a manual, one-position cool and off comfort switch is all that is required for system operation.

① **Note:**

- Only approved thermostats have been tested and are fully compatible with this equipment.
- Be aware that many different thermostats operate on batteries or power-stealing principles. These types of thermostats can not be supported as trouble-free when used with this product.

Fan operation

A multi-position thermostat fan switch allows you to choose the type of operation of the indoor fan:

- **Auto:** If you set the fan switch on the thermostat to the auto position, the indoor fan runs intermittently as required for cooling. The fan shuts off when there is no cooling operation. This option has the lowest operating cost. If you purchased one of our residential thermostats, they have an intelligent fan mode that continually circulates the air in occupied mode or when you are at home, and can cycle the fan in unoccupied mode or during the night while you sleep to further conserve energy.
 - **On:** If you set the fan switch on the thermostat to the on position, the indoor fan operates continuously and does not shut off when there is no cooling operation. The cooling (AC) system operates as required by your thermostat settings. This provides continuous air filtering and more even temperature distribution to all conditioned spaces.
- ① **Note:** On moderate days, usually during spring and fall, when no cooling is required, you may want to run only the indoor fan to ventilate, circulate and filter the air in your home or building. For **fan only operation**, set the comfort control switch on the thermostat to the off position and set the fan switch on the thermostat to the on position. Make sure that you reset the switches for normal operation.

Starting up the cooling system

For this procedure, the comfort control switch on the thermostat is assumed to be set to the off position.

- **Important:** Observe the maximum and minimum conditions for operation shown in [Table 1](#) so your system delivers the best performance and requires minimum service.

Table 1: Application limitations

Model	Air temperature at outdoor coil °F				Air temperature at indoor coil °F			
	Minimum		Maximum		Minimum		Maximum	
	DB cool	DB heat	DB cool	DB heat	WB cool	DB heat	WB cool	DB heat
13.4 SEER2 AC models - 1 phase	55	—	115	—	57	—	72	—
14.3 SEER2 AC models	55	—	125	—	57	—	72	—

① **Note:** Operation below the temperature in this table is permissible for a short period of time during morning warm-up.

To start up the cooling system, do the following:

1. If the main power supply to the outdoor and indoor units is off, set the appropriate disconnects to the **ON** position.
2. Set the comfort control switch on the thermostat to the **COOL** position as required.
3. Set the thermostat to the required temperature.
For cooling, the higher the setting, the lower the amount of energy consumed. Federal guidelines recommend a setting of 78°F.
4. Set the fan switch on the thermostat to the required position.

Dealing with power failure

- When events such as accidents or wind storms disrupt the electrical power supply to your home, set the thermostat to the **OFF** position.

Increasing energy efficiency

These are some steps you can take to increase the energy efficiency of your unit:

- Do not adjust your thermostat unnecessarily. Increasing or decreasing the temperature setting on your thermostat does not make your system cool any faster. Set your thermostat to a comfortable setting and only adjust it when required.
- Do not restrict air circulation. If the placement of items such as furniture or rugs interferes with air vents, your system has to work excessively to reach selected temperatures. This requires more energy, resulting in higher costs.
- If you are going to be away from home for a period, for example, a day or more, adjust your thermostat accordingly. Be aware that it takes the system some time to reach selected temperatures on your return home. This does not occur immediately.
- Do not locate lamps or other heat producing appliances such as radios, television sets, and heaters near your thermostat. The heat from these items gives your thermostat a false indication of room temperature.
- Select a comfortable thermostat setting, but remember that selecting a moderate temperature saves energy.
- Turn on your kitchen exhaust fan when cooking and turn on your bathroom exhaust fan when showering. Make sure your clothes dryer is correctly vented. Otherwise, excess heat and humidity can be created, causing your cooling system to run for longer.

- Set your thermostat a few degrees lower than normal several hours before entertaining a large group of people in a relatively small area. People produce a considerable amount of heat and moisture in a closed area.
- Keep drapes and venetian blinds closed when practical, because they provide insulation against heat loss or heat gain.
- Contact a qualified service technician to repair or make adjustments to your system. They are trained to perform this service.

Conserving cooling energy

- Be aware that to comfortably cool your home, your system must remove both heat and humidity. Do not turn your system off if you are away all day. On a hot day, your system may have to operate between 8 h to 12 h to reduce the temperature in your home to a normal comfort level.
- Close drapes or blinds and lower awnings on windows that get direct sunlight in the summer.
- Keep windows closed after sundown. While the outdoor temperature at night may be lower than the indoor temperature, the air is generally loaded with moisture that is soaked up by furniture, carpets, and fabrics. This moisture must be removed when you restart your system.
- Be aware that the higher the outdoor temperature, the greater the load on your system. Do not be alarmed when your system continues to run after the sun has set on a hot day. Heat is stored in your outside walls during the day and continues to flow into your home for several hours after sunset.
- Use your kitchen exhaust fan when cooking. One surface burner set to high requires 1 ton of cooling. Turn on your bathroom exhaust fan while showering to remove humidity. However, do not run exhaust fans excessively, because this decreases efficiency by removing conditioned air.

Maintaining your system

Regular periodic preventative maintenance must be performed on this equipment. The person most familiar with the equipment in your HVAC system is a dealer. A dealer can do the following:

- Make sure that your maintenance program meets the conditions of the warranty.
- Maximize the efficiency of your equipment.
- Service your unit within the federally mandated guidelines with regard to unlawful discharge of refrigerants into the atmosphere.

Only qualified, licensed service personnel must install, repair, or service this equipment. Unlicensed personnel can do the following:

- Perform the basic maintenance functions of inspecting and replacing or cleaning air filters and cleaning the outdoor coil.
- Perform basic checks to avoid unnecessary service calls.
- Maintain required clearances around the unit.

Inspecting and replacing or cleaning air filters

It is essential to always use air filters and keep air filters clean to ensure maximum efficiency and adequate air circulation. Inspect air filters monthly and replace or clean air filters if they are dirty.

WARNING

Before performing any maintenance procedure, shut off all power to the unit to avoid personal injury.

► **Important:**

- If the location of the air filter is not obvious, contact a qualified service agency.
- Do not replace permanent air filters with disposable air filters.
- Install air filters with the airflow arrow in the same direction as the airflow in your duct.

To inspect and replace or clean air filters, do the following:

1. Shut off all power to the unit.
2. Inspect the air filters.
3. If the air filters are dirty, proceed as required for the type of air filter:
 - Replace disposable air filters with new air filters.
 - Remove and wash permanent air filters with a mild detergent according to the manufacturer's recommendations.

Cleaning the outdoor coil

It is important that dirt does not accumulate on the outdoor coil surface or other parts in the air circuit. You can vacuum the outdoor coil or use a brush or other suitable means to remove any debris from between the fins. If the outdoor coil becomes excessively dirty, clean the outdoor coil as outlined in this procedure.

► **Important:** You must clean the outdoor coil as often as necessary to keep the outdoor coil clean.

WARNING

Before performing any maintenance procedure, shut off all power to the unit to avoid personal injury.

CAUTION

Exercise care when cleaning the coil so that the coil fins are not damaged.

Do not permit the hot outdoor air discharge outlet to be obstructed by overhanging structures or shrubs.

NOTICE

Do not use a pressure washer as coil fin damage will occur.

To clean the outdoor coil, do the following:

1. Shut off all power to the unit.
2. Clean the outdoor coil with water or a suitable coil cleaner.

► **Important:** Avoid getting water into the fan motor and control box.
3. Rinse the outdoor coil after cleaning.
4. Flush dirt from the base pan after cleaning the outdoor coil.

Avoiding unnecessary service calls

There are a few instances where you can avoid unnecessary service calls. If the unit stops functioning correctly, before calling your servicing dealer, do the following:

1. Check the indoor section for a dirty air filter. Replace or clean the air filter if required. See [Inspecting and replacing or cleaning air filters](#).
2. Check the outdoor section for leaf or debris blockage. Eliminate the problem, turn off the thermostat for 10 s, and attempt to start up the system. Wait 5 min to see if the system starts up.

If the system does not start up, call your servicing dealer.

WARNING

Risk of fire

This unit uses a slightly flammable (A2L) refrigerant. The unit must only be repaired or serviced by trained service personnel. Before attempting to repair or service the unit, consult the *Installation Manual*. Follow all safety precautions.

Maintaining required clearances

- Maintain the minimum clearances shown in [Table 2](#) if doing patio or yard improvements around the outdoor unit.

Table 2: Outdoor unit clearances

Model	Coil clearance area (in.)	Overhead clearance (in.)	Service panel access (in.)	Unit to unit distance (in.)
13.4 SEER2 AC models	10	48	18	24
14.3+ SEER2 AC models	10	48	24	24

- Keep the outdoor unit free of foliage, grass clippings, leaves, paper, and any other material that could restrict the proper airflow in and out of the unit.

Sourcing replacement parts

Replacement parts are available from your local contractor or dealer.

