

Amana®

Room Air Conditioner And Heat Pump Use & Care Manual

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12C3HEV
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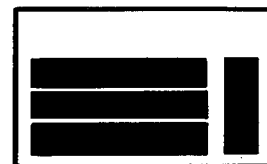
18C3HEV
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**Portable
Compact
High Capacity**

1. Introduction

READ CAREFULLY AND COMPLETELY.

This room air conditioner will cool, dehumidify and filter the air inside your home. Heat pump and electric heat models will provide heating in addition to cooling.

Sections 1 through 7 of this manual give you general operating instructions, installation and maintenance instructions for your room

air conditioner. These general instructions apply to all models. Please read them carefully. Sections 8 and 9 provide specific instructions, including special features and control operation for each model. After reading Sections 1 through 7, turn to Section 8 or 9 and find the control layout that matches your specific room air conditioner model. Read the information on this page carefully.

2. Unpacking

Unpack and visually inspect the unit. Report any damage to the delivering carrier immediately. Remove and discard all packing material. On some models the air conditioner front and/or mounting kit hardware may be packed separately.

Record the model, serial and manufacturing numbers of your unit in the space provided on page 2. This information is found on a

nameplate visible after the front of the air conditioner has been removed. The rated voltage, amperage and capacity for your specific model can also be found on this nameplate.

Read the warranty packaged with the unit. Keep the warranty and a copy of your sales receipt for future reference. You may also want to record the date purchased and the selling dealer on page 2.

3. Electrical Requirements

Be sure that the electrical power supplied to the unit matches the electrical requirements shown on the unit nameplate and/or the requirements for your unit's plug type as shown in Table 1. A licensed electrician or qualified service person who is familiar with local electrical codes should be consulted with regard to appropriate electrical wiring for the air conditioner. This will ensure that the wiring is of the proper size and that the voltage is correct for operation of the air conditioner.

Models marked "Use on Single Outlet Circuit Only" on the right side of the unit should not be plugged into a circuit with another appliance or light fixture. Fuse or circuit breaker ratings must be according to the fuse instruction label on the unit and/or according to the fuse size shown in Table 1 for your unit's plug type. To prevent blowing fuses, wait two minutes after turning the unit off before turning it on again.

CAUTION:

This air conditioner is equipped with a three-prong grounding plug for your protection against possible shock hazards. Where a two-prong receptacle is encountered, it is the personal responsibility and obligation of the owner to contact a qualified electrician and have it replaced with a properly grounded three-prong receptacle in accordance with the National Electrical Code and/or local codes. **NEVER USE AN EXTENSION CORD TO OPERATE A ROOM AIR CONDITIONER.**

Where a two-prong adaptor is required temporarily, it is the personal responsibility and obligation of the owner to contact a qualified electrician and have the adaptor properly grounded and polarized.







WARNING:

To reduce the risk of electrical shock, personal injury or death, do not under any circumstances cut or remove the round grounding prong from the plug.

CAUTION:

To avoid possible electrical shock, property damage, or fire. **DO NOT** pinch the power cord when installing this appliance.

TABLE 1

Unit Plug Type	Receptacle Required	Circuit Rating, Breaker or Time Delay Fuse	Voltage Rating On Unit 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
 NEMA No. 6-20P	 NEMA No. 6-20R	250V-20AMP	230/208V rated over 12 amperes but not more than 16 amperes

4. Installation

Complete step-by-step installation instructions are furnished with your unit. These instructions will be found on a separate page included with this manual or in the mounting kit assembly. Follow these instructions carefully. Keep these instructions with this manual for future reference. Your unit will be one of the following three designs:

Window mounting kit supplied with unit. These models are designed for window installation. Some models include instructions for installation in window with storm windows. Other models require the storm window to be removed or the purchase of a special storm window/mobile home mounting kit. See your installation instructions or consult your Amana dealer for details.

No window mounting kit supplied with unit. These models are designed for mounting through an opening in a wall. These units can be adapted to window installation by purchasing an optional window mounting kit. Consult your dealer to choose the kit that is appropriate for your model and installation.

Separate sleeve. Some Builder models are designed such that the outer case and the chassis can be purchased separately. Through-the-wall installation instructions are included with the outer case. These models can be adapted to window installation by purchasing an optional mounting kit.

5. Room Heat Pumps

Heat pumps work by pumping heat instead of creating it. In the summer, the cool indoor coil absorbs heat from your room and pumps it outdoors, providing cooling. In the winter, heat pumps reverse this operation. By lowering the temperature of the outdoor coil below the outdoor temperature, the heat pump absorbs the heat from outdoors and pumps it inside your house. This heat transferring process is very efficient. For example, at 45°F outdoor temperature, a heat pump can provide 2½ watts of heat for every watt of electricity it consumes.

As outdoor temperatures drop, the heating capacity and efficiency of the heat pump declines. At temperatures below 45°F, it is likely that ice will form on the outdoor coil. Heat pump units are designed to operate as a heat pump above approximately 40°F. Below 40°F, these units switch automatically from reverse cycle heat pump to auxiliary electric heating. No defrost is required. There is no minimum operating temperature.

6. Normal Care and Maintenance

WARNING:

To reduce the risk of electric shock, personal injury, or death, turn the fan control to the off position and remove the unit plug from the wall outlet before doing any inspection or maintenance work.

Annual Inspection. It is suggested that your unit be inspected by your dealer or servicer once a year. It is advisable to have the outer case removed and the unit thoroughly cleaned.

Front Grille and Filter Removal. Each unit is supplied with a decorative front grille and a permanent, removable air filter.

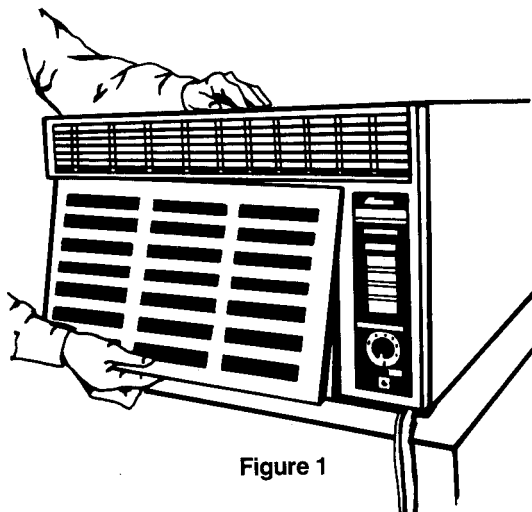


Figure 1

On most models the front grille contains a removable insert that provides easy access to the air filter. To remove the entire front or filter, grasp the bottom center of the insert. Then lift and pull out on the insert. Remove the air filter. See Figure 1.

The entire front can then be taken off the chassis by pulling the control knobs off their shafts and turning out the 3 or 4 screws located behind the filter.

To replace the filter, hang it on the two hooks provided on the grille before replacing the insert.

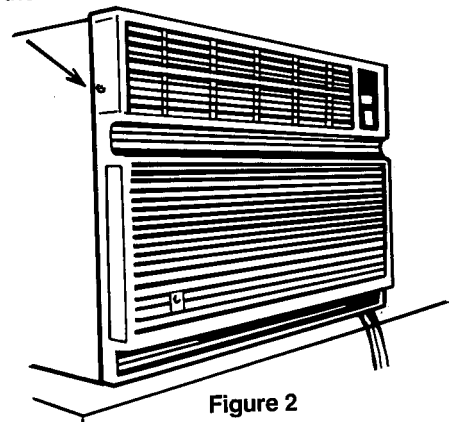


Figure 2

On models that do not have a front insert, the front grille is attached to the outer case by two coin head screws. To remove the front grille or filter from these models, first remove the two screws. Remove the front grille by grasping the top of the grille, pull out then up. See Figure 2.

The permanently framed filter fits in two vertical channels in front of the indoor coil. To remove the filter, grasp the top and bottom edge near the middle of the filter and pull out. To replace, insert the left edge in the channel, bow slightly, and slip the right edge into the other channel.

Front Grille and Cabinet Cleaning. The grille and complete cabinet may be cleaned with warm water and mild soap or detergent. Cleaning or polishing compounds are not recommended, as they may damage plastic surfaces.

Air Filter Cleaning. A dirty air filter reduces the operating efficiency of your unit. The filter should be inspected at least once every week during operation. It can be cleaned with a vacuum cleaner or washed in warm water and mild detergent. The filter should be thoroughly dried before it is replaced. Do not operate the unit without a filter.

Removing a Slide-out Chassis from the Outer Case.

! WARNING:

To reduce the risk of electric shock, personal injury, or death, turn the fan control to the off position and remove the unit plug from the wall outlet before doing any inspection or maintenance work.

To remove a slide-out chassis from the outer case, first remove the complete front using the instructions given previously in this section. Then remove the clamp and/or screws that hold the chassis into the outer case. Place your left hand on the top of the outer case and your right hand in the discharge air chamber. See Figure 3.

! CAUTION:

To reduce the risk of personal injury, be sure to have sufficient help when moving your unit. A room air conditioner can weigh between 70 and 240 pounds.

Slowly and evenly pull straight out on the chassis until approximately 9 to 12 inches is extending from the outer case. Using both hands, grasp the unit base pan and pull the remaining chassis from the outer case.

Fan Motor. The fan motor is permanently lubricated for long life. There is no need to oil the motor.

Ocean-side or Corrosive Atmosphere. The life of your unit may be greatly reduced if you live in a salt-air or other corrosive type environment. Under these conditions the unit should be removed from its case and completely cleaned at least once a year. At that time any scratches or blisters on the painted surfaces should be sanded and repainted. Placing an algicide tablet in the outdoor side of the unit's base pan is suggested in humid areas where algae formation is common.

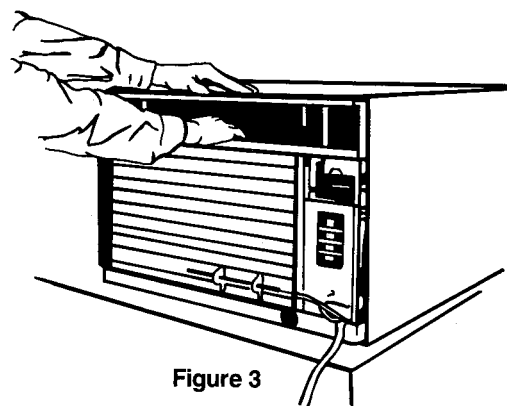


Figure 3

7. General Operating Instructions

The operation and controls of all units are very similar; however, they do vary slightly from model to model. You may need to refer to the page in Section 8 or 9 that shows the control panel of the unit you have purchased. Sections 8 or 9 will give detailed information on the operation of controls.

Initial Start Up/Cooling. Select the highest fan speed and set temperature control to its coldest position. When the desired temperature is reached, slowly turn the temperature control counter-clockwise toward a lower number until the compressor shuts off. The thermostat will then cycle the compressor on and off to maintain this selected temperature. Adjust the fan speed for desired air circulation.

Initial Start Up/Heating. Select the highest fan speed and set temperature control to its warmest position. When the desired temperature is reached, slowly turn the temperature control clockwise toward a higher number until the compressor or electric heater shuts off. The thermostat will then cycle the compressor or heater on and off to maintain this selected temperature. Adjust the fan speed for desired air circulation.

Changing Air Flow Direction. All units are equipped with air flow deflectors which allow you to divert the air from a center flow to the left or right. In addition, some models have a tilting air discharge chamber to provide a maximum 30° upward air discharge. Adjust baffles and tilting chamber for desired air flow pattern.

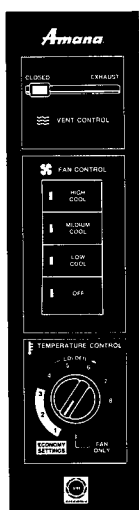
Air Flow Around the Unit. Check the indoor grille and outdoor louvers for obstructions to air flow. Do not block the air flow to and from the unit. If air is obstructed and/or deflected back into the unit, the air conditioner's compressor may cycle on and off rapidly. This could damage your unit.

Drain Plug. Most models are equipped with a sealed drain outlet located at the rear of the unit. In areas where high humidity or corrosive environment is encountered it may be desirable to remove the drain plug or attach a condensate drain to your unit. The rubber grommet which seals the drain outlet may be punctured and a condensate drain tube inserted. See your servicer if a condensate drain is required. To prevent the fan blade from freezing in place, the drain plug must be removed or drain tube installed on any unit that will be operated at outdoor temperatures below 32°F. To reduce algae growth use algicide tablet in the unit base pan.

Heat Pump Drain Valve. Some heat pump models have a thermostatic drain valve. During winter heat pump operation, water enters the base pan as a result of condensation and ice formation on the outside coil. The drain valve will remove this water, helping the unit deliver rated heating capacity and prevent the fan blade from freezing in place. The drain plug must be removed or drain tube installed on any heat pump unit that does not have a thermostatic drain valve if the unit will be operated at outdoor temperatures below 32°F. See Your servicer if a condensate drain is required.

8. Controls/Cooling Models

Models with Touch Cooling™ fan control.



≡ Vent Control

Choose one of the following two settings by sliding the vent control under the appropriate marking:

CLOSED — Exhaust damper is closed. Unit circulates and filters room air. This position should be used for normal cooling operation.

EXHAUST — Exhausts room air to the outdoors. Also circulates and filters room air. This position can be used to exhaust stale or smokey air. To conserve energy, it is advised that the Thermostat Control be in the Fan Only setting when using this feature.

✿ Fan Control

Choose one of the following four settings by firmly pressing on the appropriately labeled touch pad until the red indicator appears to the left:

HIGH COOL — Filters and circulates room air with the fan running continuously on high speed. Also cools and dehumidifies while the compressor is running. Select this setting for maximum air circulation and cooling effect.

MEDIUM COOL — Filters and circulates room air with the fan running continuously on medium speed. Also cools and dehumidifies while the compressor is running.

LOW COOL — Filters and circulates room air with the fan running continuously on low speed. Also cools and dehumidifies while the compressor is running. Select this setting for quiet cooling operation.

OFF — Completely shuts off the unit. To prevent blowing fuses, wait two minutes after turning the unit off before turning it on again.

⌚ Temperature Control

Choose one of the following dial settings by rotating the selector to the appropriate position:

1 Through 8 — Controls room temperature by cycling the compressor on and off. Dial is numbered from 1 to 8. Turn clockwise toward a higher number for a cooler room temperature. Turn counter-clockwise toward a lower number for a warmer temperature. Setting the control at the coldest or warmest extremes of the thermostat range will not cool or heat the room any faster.

The dial range from 1 to 3 is labeled **Economy settings**. This range serves as a visual reminder that setting the thermostat at a lower number (higher room temperature) can reduce energy consumption.

FAN ONLY — Select this setting for circulating or exhausting of room air without cooling.

Models with rotary fan control.



≡ Vent Control (Not included on all models)

Choose one of the following two settings by sliding the vent control under the appropriate marking:

CLOSED — Exhaust damper is closed. Unit circulates and filters room air. This position should be used for normal cooling operation.

EXHAUST — Exhausts room air to the outdoors. Also circulates and filters room air. This position can be used to exhaust stale or smokey air. To conserve energy, it is advised that the Fan Control be in the Fan Only setting when using this feature.

✿ Fan Control

Choose one of the following five settings by rotating the selector to the appropriate position:

HIGH OR EXTRA HIGH COOL — Filters and circulates room air with the fan running continuously on high speed. Also cools and dehumidifies while the compressor is running. Select this setting for maximum air circulation and cooling effect.

MEDIUM OR NORMAL COOL (Not included on all models) — Filters and circulates room air with the fan running continuously on medium speed. Also cools and dehumidifies while the compressor is running.

LOW COOL — Filters and circulates room air with the fan running continuously on low speed. Also cools and dehumidifies while the compressor is running. Select this setting for quiet cooling operation.

FAN ONLY — Select this setting for circulating or exhausting of room air without cooling.

OFF — Completely shuts off the unit. To prevent blowing fuses, wait two minutes after turning the unit off before turning it to another position.

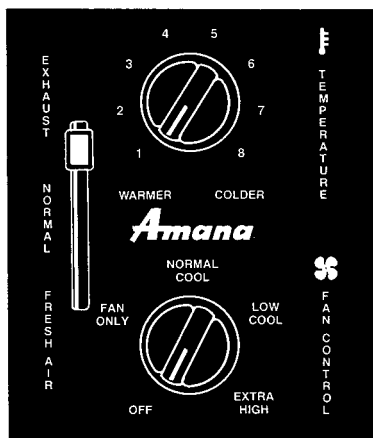
⌚ Temperature Control

Choose one of the following dial settings by rotating the selector to the appropriate position:

1 Through 8 — Controls room temperature by cycling the compressor on and off. Dial is numbered from 1 to 8. Turn clockwise toward a higher number for a cooler room temperature. Turn counter-clockwise toward a lower number for a warmer temperature. Setting the control at the coldest or warmest extremes of the thermostat range will not cool or heat the room any faster.

The dial range from 1 to 3 is labeled **Economy Settings**. This range serves as a visual reminder that setting the thermostat at a lower number (higher room temperature) can reduce energy consumption.

Models with alternate rotary fan control.



≡ Vent Control

Choose one of the following three settings by sliding the vent control up or down as appropriate:

FRESH AIR — Draws in outdoor air while circulating and filtering room air. To conserve energy when cooling is required, this position should not be used when the outdoor temperature or humidity exceeds the indoor conditions.

NORMAL — Exhaust and fresh air dampers are closed. Unit circulates and filters room air. This position should be used for normal cooling operation.

EXHAUST — Exhausts room air to the outdoors. Also circulates and filters room air. This position can be used to exhaust stale or smokey air. To conserve energy, it is advised that the Fan Control be in the Fan Only setting when using this feature.

✿ Temperature Control

Controls room temperature by cycling the compressor on and off. Dial is numbered from 1 to 8. Turn clockwise toward a higher number for a cooler room temperature. Turn counterclockwise toward a lower number for a warmer temperature. Setting the control at the coldest or warmest extremes of the thermostat range will not cool or heat the room any faster.

✿ Fan Control

Choose one of the following five settings by rotating the selector to the appropriate position:

The fan control can be in one of the following five settings:

NORMAL COOL — Filters and circulates room air with the fan running continuously on medium speed. Also cools and dehumidifies while the compressor is running.

LOW COOL — Filters and circulates room air with the fan running continuously on low speed. Also cools and dehumidifies while the compressor is running. Select this setting for quiet cooling operation.

EXTRA HIGH — Filters and circulates room air with the fan running continuously on high speed. Also cools and dehumidifies while the compressor is running. Select this setting for maximum air circulation and cooling effect.

FAN ONLY — Select this setting for circulating or exhausting of room air without cooling.

OFF — Completely shuts off the unit. To prevent blowing fuses, wait two minutes after turning the unit off before turning it to another position.

9. Controls/Heat Pump and Electric Heat Models



≡ Vent Control

Choose one of the following two settings by sliding the vent control under the appropriate marking:

CLOSED — Exhaust damper is closed. Unit circulates and filters room air. This position should be used for normal cooling or heating operation.

EXHAUST — Exhausts room air to the outdoors. Also circulates and filters room air. This position can be used to exhaust stale or smokey air. To conserve energy, it is advised that the Fan Control be in the Fan Only setting when using this feature.

✿ Fan Control

Choose one of the following six settings by rotating the selector to the appropriate position:

HIGH COOL — Filters and circulates room air with the fan running continuously on high speed. Also cools and dehumidifies while the compressor is running. Select this setting for maximum air circulation and cooling effect.

LOW COOL — Filters and circulates room air with the fan running continuously on low speed. Also cools and dehumidifies while the compressor is running. Select this setting for quiet cooling operation.

LOW HEAT — Filters and circulates room air with the fan running continuously on low speed. Also heats while the compressor or electric heater is running. Select this setting for quiet heating operation.

11. When Service Is Required

The dealer from whom you purchased the room air conditioner can give you the name of your nearest Authorized Service Center. Help them give you prompt service by giving them:

1. An accurate description of the trouble.
2. Complete model, serial, and manufacturing numbers located on the serial plate.
3. Proof of purchase (sales receipt on request).

Repair by an unauthorized servicer that results in subsequent failure will void the warranty. Warranty details are contained in the warranty certificate enclosed with this booklet.

Keep an accurate record of any service calls: what was done, who serviced the unit, and the date.

Amana has a large network of Authorized Service Centers in the U.S. However, if you should have a service problem that is not resolved locally,

Write:

**Customer Relations Department
Amana Refrigeration, Inc.
Amana, Iowa 52204**

Or dial:

**1-800-525-6856
Monday through Friday
8 a.m.-4:30 p.m., Central Time Zone**

Please include model, serial, and manufacturing numbers, date of purchase, and selling dealer.

For questions concerning product usage,
installation and warranty, Call:

CONSUMER INFORMATION LINE



AMANA TOLL FREE

1-800-843-0304

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Your participating Amana dealer has details. Or contact us:

**Amana Refrigeration, Inc.
Customer Service Department
Amana, IA 52204
(319) 622-5511
Monday through Friday
8 a.m.-4:30 p.m., Central Time Zone**

HIGH HEAT — Filters and circulates room air with the fan running continuously on high speed. Also heats while the compressor or electric heater is running. Select this setting for maximum air circulation and heating effect.

FAN ONLY — Select this setting for circulating or exhausting of room air without cooling or heating.

OFF — Completely shuts off the unit. To prevent blowing fuses, wait two minutes after turning the unit off before turning it to another position.

Temperature Control

Controls room temperature by cycling the compressor or electric heater on and off. Dial is numbered from 1 to 8. Turn clockwise toward a higher number for a cooler room temperature. Turn counter-clockwise toward a lower number for a warmer temperature. Setting the control at the coldest or warmest extremes of the thermostat range will not cool or heat the room any faster.

10. Before Calling For Service



WARNING

To reduce the risk of electric shock, personal injury, or death, turn the fan control to the off position and remove the unit plug from the wall outlet before doing any inspection or maintenance work.

The following is a list of problems that are sometimes encountered when using a room air conditioner. Possible cause and suggested remedies are given for each problem.

If the problem can not be fixed using the suggested remedies, see Section 11. WHEN SERVICE IS REQUIRED.

PROBLEM	POSSIBLE CAUSE	SUGGESTED REMEDY
UNIT WILL NOT RUN	No power to the unit.	Set Fan Control to position other than OFF. Make sure plug is firmly held in outlet. Check for blown fuses or tripped circuit breakers.
LITTLE OR NO COOLING LITTLE OR NO HEATING (Fan and compressor runs)	Fresh Air or Exhaust damper is open. Obstructed indoor or outdoor air flow. Dirty air filter. Unit undersized for application.	Set Vent Control to Closed or Normal position. Remove obstruction from indoor grille or outdoor louvers. Clean the air filter. See Section 6 for details. Check with dealer to determine proper capacity unit for your application.
LITTLE OR NO COOLING LITTLE OR NO HEATING (Only the fan runs)	Temperature Control not properly set.	For cooling turn Temperature Control to higher number. For heating turn Temperature Control to lower number.
NOISY UNIT	Loose front or mounting assembly. Weak building construction. Water hitting the fan blade. Unit oversized for application. (Compressor cycles on and off frequently.)	Tighten any loose parts. Provide additional support for the unit. Normal in high humidity. Stop noise by removing drain plug or adding a condensate drain. See Section 7. Check with dealer to determine proper capacity unit for application.
MOUNTING SUPPORT CAN NOT BE INSTALLED	Storm window frame has been installed into window.	Some models require the storm window frame to be removed before installation.
FROST ON INDOOR COIL	Dirty air filter. Normal for low outdoor temperatures.	Clean the air filter. See Section 6 for details. Turning Temperature Control to a lower number will reduce occurrence and duration of frosting condition.
FROST ON OUTDOOR COIL (Heat pump models only)	Normal for outdoor temperatures at or below 45°F.	Call for service only if the unit does not heat the room and you have checked all the problems and remedies listed under LITTLE OR NO HEATING in this same section.
ODORS IN COOLING	Mold, mildew, or algae formation on wet surfaces.	To reduce growth use algicide tablet in the unit base pan or remove drain plug or add a condensate drain. Have your unit thoroughly cleaned. See Sections 6 and 7.
ODORS IN HEATING	Normal for first time electric heater is used each season.	Caused by dust accumulation during the warm months. Odor will dissipate quickly with heater use.