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SPECIFICATIONS
These instructions are for the Recreation Vehicle Products, Inc. roof top air conditioner style 6727 Mini Mach.

The 6727 Mini Mach in production today is a two (2) speed air conditioner which operates from a 115 VAC, 60 Hz, single phase power supply.

The compressor manufactured within the 6727 Mini Mach may vary in style. The compressor may be a reciprocating piston type, or a rotary type. All compressors within our products meet R.V. Product's high standards of quality. The different types of compressors have been tested to make sure our air conditioner passes all cooling capacity requirements.

NOTE
All RV air conditioners are tested and rated in accordance with A.R.I. Standard 250-74.

GENERAL INFORMATION

It is not the policy of R.V. Products, Inc. to size generators for application in Recreational Vehicles. However, when sizing generators, the total electrical power consumption in Watts must be determined and taken into consideration, such as:

A. Maximum running watts of the air conditioner at A.R.I. maximum operating conditions (See Specifications).

B. Power consumption of electronic ovens, electric toasters, electric coffeemakers, television sets, refrigerators, lights, etc.

C. Generators do lose capacity under the following conditions:
   1. Altitude increases above sea level.
   2. Temperature increases above certain outdoor design temperatures.
   3. Lack of maintenance.

SIZING

The size of recreational vehicle air conditioners is generally limited to about 13,500 BTUH (approximately one ton) of cooling.

This is due to the limited electrical power normally available in most trailer parks and/or economic limitations on the use of generators with enough capacity to handle large air conditioners.

The 6727 Series air conditioner is rated at 7,100 BTU's of cooling capacity. If more cooling capacity is desired, then the use of a larger air conditioner or the addition of a second air conditioner is recommended.

The ability of the air conditioner to maintain the desired inside temperature depends on the heat gain of the recreational vehicle.

The size of the vehicle, amount of window area, amount of insulation, direct exposure to the sun, outside temperature and the number of people in the recreational vehicle may increase the heat gain to such an extent that the capacity of the air conditioner is exceeded.

As a general rule, air entering the air conditioner will be cooled about 15 to 20 degrees, depending on the outside temperature and humidity conditions.

For example, if the air entering the return air grills in the air conditioner is 80°F, the air leaving the discharge grills in the air conditioner will be 60° to 65 °F.

As long as this temperature difference is being maintained between the return air and discharge air, the air conditioner is operating at its capacity. If the desired inside temperature (normally 80°F) cannot be maintained, then the heat gain of the R.V. is too great for the capacity of the air conditioner.

Parking the vehicle in a shaded area, keeping windows and doors shut and avoiding the use of heat producing appliances in the vehicle will help to reduce the heat gain. When possible, the addition of insulation and tinted glass (especially in uninsulated vans) should be considered.
CONTROLS
Your RV air conditioner is operated totally from the control panel located in the ceiling assembly. There are three controls on the ceiling assembly that help you control the air conditioner. They are as follows:

1. The Selector Switch (system switch)—The selector switch determines which mode of operation the air conditioner will be in. By rotating the selector switch, the operator can obtain any system function desired. System functions vary depending upon options of both the roof top unit and ceiling assemblies available. Figures 1, 2, 3, & 4 show system switch location and list all available functions by model. The “Operation” section explains the operational characteristics for each mode of operation.

2. The thermostat or temperature control (for all ceiling assemblies)—In the cooling mode the thermostat regulates the on and off temperature setting at which the compressor operates.

For ceiling assemblies equipped with the Elect-A-Heat heating option, the thermostat also regulates the on and off temperature setting at which the heating element operates.

NOTE
The optional heating assembly is intended to take the chill out of the indoor air when the air is a few degrees too cool for comfort. The heater is an effective “chill chaser”. It is not a substitute for a furnace.

Do not expect the heating coil on your heater to glow. Because the fan draws in cold air and forces it over the coil, the coil will not turn red. A hint of red may occur where the moving air does not directly touch the coil.

3. Louvers—The louvers are located at both ends of the ceiling assembly shroud and are used in directing the discharge air from the unit.

![Diagram of controls and settings](image-url)
OPERATION

I. For Air Recirculation Only (refer to Figures 1 thru 4).
   A. Turn the selector switch to "Low Fan" or "High Fan".
   B. Position the louvers to the desired direction the discharge air is to flow.

   NOTE
   The Thermostat does not control operation of the fan. Regardless of the type of operation, the air conditioner is operating in (Fan, Cooling or Heating), the fan will operate continuously any time the air conditioner is on.

II. For Cooling (refer to Figures 1 thru 4).
   A. Turn the selector switch to the "LOW COOL" or "HIGH COOL".
   B. Rotate the thermostat (temperature control) switch to the position that is the most comfortable to you. The compressor will automatically turn on when the temperature of the air entering the air conditioner rises a few degrees above the setting you have selected. When the temperature of the air entering the air conditioner drops below the selected setting the compressor will automatically turn itself off. The air conditioner, while in the cooling mode, will continue to cycle the compressor on and off in the above mentioned fashion until the selector switch is turned to another mode of operation.
   C. Position the louvers to the desired direction the discharge air is to flow.

III. For Heating ("Cooling and Heating" Ceiling Assemblies Only - Refer to Figure 2).

   NOTE
   The optional Elect-A-Heat is intended to take the chill out of the indoor air when the air is a few degrees too cool for comfort. The Elect-A-Heat is an effective "chill chaser", but is not a substitute for a furnace.

Do not expect the heating coil on your heater to glow. Because the fan draws in cold air and forces it over the coil, the coil will not turn red. A hint of red may occur where the moving air does not directly touch the coil.

   A. Turn the selector switch to the "Low Heat" position.
   B. Rotate the thermostat (temperature control) switch to the position that is the most comfortable to you. The heater will automatically turn on when the temperature of the air entering the air conditioning unit drops below this setting a few degrees and automatically turns off when the temperature of the air conditioner rises a few degrees above this setting. The heater will continue to cycle on and off in this fashion until the selector switch is turned to another mode of operation.
   C. Position the louvers to the desired direction the discharge air is to flow.

IV. Operation During Cooler Nights
(Cooling operation)
It is important, when the outdoor temperature drops in the evening or during the night to below 75°F, that the thermostat (temperature control) be set at a midpoint between "Warmer" and "Cooler". If the setting is at "Cooler" the cooling (evaporator) coil may become iced-up and stop cooling. During the day when the temperatures have risen above 75°F, reset the thermostat switch to the desired setting.

   NOTE
   Should icing-up occur it is necessary to let the cooling (evaporator) coil defrost before normal cooling operation is resumed. During this time operate the unit in the "HIGH FAN" position with the system at maximum air flow. When increased or full air flow is observed, the cooling coil should be clear of ice.
MAINTENANCE

1. Owner
One of the biggest advantages to your new R.V. Products air conditioner is that the maintenance needed to keep the unit in good care is minimal. In fact about the only thing you, the owner, must take care of is the cleaning and replacement of the filters.

The filter is a vital part of every air conditioning system. If the filters are not cleaned at regular intervals, they may become clogged with lint, dirt, grease, etc. A clogged filter will produce a loss of air volume and may eventually cause an icing-up of the cooling (evaporator) coil.

IMPORTANT
Do not operate your air conditioner for extended periods of time without the filter installed.

An even more serious condition occurs when the air conditioner is operated without a filter. When this happens the lint, dirt, grease, etc. that are normally stopped by the filter are now accumulating in the cooling coil. This not only leads to a loss of air volume and a possible icing-up of the cooling coil, but could also result in serious damage to the operating components of the air conditioner.

We recommend that the filters be cleaned or changed at least every two weeks when the air conditioner is in operation.

A. Cleaning and/or changing the filters.

1. Remove the Selector Switch and Thermostat knobs from ceiling assembly.
2. Remove the two screws that secure the ceiling assembly shroud to the ceiling assembly. See Fig. 3.
3. Lower the shroud and gently slide it off the control knob shafts.
4. Take filters out and either clean or exchange with other filters. See Fig. 6.

NOTE
If replacement filters are necessary, the filters can be purchased from most R.V. Products Authorized Service Centers or from R.V. Products, Inc. directly. It is recommended that spare filters be carried with the RV at all times to replace worn, torn or deteriorated filters.

5. Replace the filters and reinstall the ceiling shroud in reverse order starting with Step 3.
II. Service Person

A. Electrical - All electrical work and/or inspection should be performed only by qualified service personnel. Contact your nearest R.V. Products Service Center if electrical problems should arise.

B. Check Points - Failure to start or to cool the air are sometimes problems with air conditioning units. The R.V. Products air conditioner is designed to operate on 115 volt electrical power. If the compressor on the air conditioner fails to start, check with your R.V. Products Service Center to determine that the proper wire size is connected to the unit, the proper circuit breakers are installed as protection devices on the electrical circuit and the proper sized extension cord is being used for the distance covered from the utility outlet to the RV. The required minimum wire size is #12 AWG for lengths up to 25 feet (larger wire size for greater distances). Each air conditioning unit must be protected with a 20 amp time delay fuse or circuit breaker.

If the air conditioner continues to trip off the circuit breaker, have an electrician check the starting amperage and running amperage on the unit. The amperage figures for a particular air conditioner by model number are shown in the specification table found on page 2 of this booklet. If the circuit breaker continues to trip off and the electrical consumption is found to be normal, it will require the replacement of the faulty circuit breaker.

If all electrical power to the air conditioner is normal but neither the fan or the compressor will operate, the connector plug located behind the ceiling assembly control box should be checked to determine whether it is faulty.

On the heating-cooling air conditioner models, if all electrical power to the unit is normal and the fan runs but you never get any heated air, then the electrical plug to the heating unit should be checked for a secure connection. If this does not correct the malfunction, the heating thermostat or limit switch may be faulty.

C. Mechanical Integrity - The air conditioner should be inspected periodically to be sure that the bolts which secure the unit to the roof are tight and in good shape. Also, an examination of the plastic shroud covering the air conditioner on the top of the roof should be made periodically. Be sure the four acorn nuts are snug and holding the shroud to the air conditioner. While examining the tightness of these acorn nuts, also examine the shroud to be sure it is not developing cracks or has suffered damage from impact.

D. Lubrication

DANGER
DISCONNECT THE POWER SUPPLY TO THE UNIT BEFORE SERVICING TO PREVENT A SHOCK HAZARD OR POSSIBLE INJURY FROM MOVING PARTS.

The blower drive motor on some units, may include oiling cups at the top of the motor. There is no requirement to oil the journals under normal operating conditions. However, if lubrication to the unit is desired, use only SAE 20 non-detergent type oil. DO NOT OVER OIL, three to four drops in each oil hole once a year is sufficient.

WARRANTY SERVICE

Let's face it, sometimes even the best products may need service. If that's true of your R.V. Products air conditioner, you can get service on your unit at most of the firms listed in the Authorized Service List included with your product.

If you fail to receive your RV Service Center List or you need to obtain qualified factory trained service, simply contact us by phone or letter:

Recreation Vehicle Products, Inc.
Customer Services Dept. 546
P.O. Box 4020
Wichita, KS 67204
1-800-227-5693

IMPORTANT

1. Carefully read your limited one year product warranty which is packed with the product.

2. An optional limited four year parts contract on the compressor ONLY is available at an additional charge of $39.95. To obtain this optional four year parts contract, fill out the application included in this book and send it with a check or money order to:

Recreation Vehicle Products, Inc.
Customer Services Dept. 546
P.O. Box 4020
Wichita, KS 67204

The optional four year parts contract begins upon the expiration of the initial one-year warranty. BEFORE APPLYING, CAREFULLY READ THE PARTS CONTRACT REPRODUCED ON THE BACK PAGE OF THIS MANUAL.

3. Any applications for the extended compressor parts contract must be made WITHIN NINETY DAYS of the purchase date of the air conditioner or the recreational vehicle if the air conditioner is original equipment.
4. Inquiries to your R.V. Products Representative or R.V. Products, Inc. on this unit should contain the MODEL NUMBER and SERIAL NUMBER. The model number and serial number can be found on the I.D. Label located at the bottom of the roof unit, see Figure 5. Access to this label is accomplished by lowering the ceiling assembly. The roof unit model and serial number may also be found on the rating plate fastened on the condenser housing of the roof unit. The rating plate can be read without requiring the removal of any parts, see Figure 7. USE ONLY THE ROOF UNIT MODEL AND SERIAL NUMBER WHEN SENDING IN THE OPTIONAL FOUR YEAR PARTS CONTRACT.

5. Inquiries on the Ceiling Assembly should contain the ceiling assembly part, serial or code date number. This information can be found on the I.D. label, see Figure 6.

A model and serial number may also be found on the rating plate fastened to the condenser coil on the roof unit.

Inquiries on the Ceiling Assembly should contain the ceiling assembly part, serial or code date number. This information can be found on the I.D. Label, See Fig. 8.