

# OPERATION, MAINTENANCE, AND TROUBLE SHOOTING GUIDE

# **FOR**

## **6330 SERIES**

## SPLIT SYSTEM TRUCK CAB AIR CONDITIONERS

RV Products A Division of Airxcel, Inc. P.O. Box 4020 Wichita, KS 67204

#### TABLE OF CONTENTS

I.	General Information	2
II.	Cooling Performance Test Sheet	3
III.	Checking the Compressor Amperage	4
IV.	Maintenance	6
V.	Wall Thermostat Operation	6
VI.	Warranty Service	6

## I. GENERAL INFORMATION

This system is designed to operate from a 115 VAC, 60 HZ, 1 Phase power supply. Verify that the air conditioner is receiving the proper power. Use the temperature differential table below to determine proper system operation and installation. Temperature readings **MUST** be taken at the evaporator inlet (Figure 1) and the air supply vent (Figure 2) using a digital thermometer or equivalent to record the readings.

HVAC Mode	Measurement Location	Temperature Differential
Air Conditioning	Air supply vent and evaporator intake	16 to 22 Degrees F.
Low Heat	Air supply vent and evaporator intake	16 Degrees F.
High Heat	Air supply vent and evaporator intake	34 Degrees F.

<sup>\*</sup>Any deviations from the stated temperature differential are cause to examine the system for dirty air filters or dirty outdoor condenser coil.

Note: Parking the vehicle in a shaded area, keeping windows and doors shut, and minimizing the use of heat producing appliances in the vehicle will help to reduce the heat gain in the cooling mode.

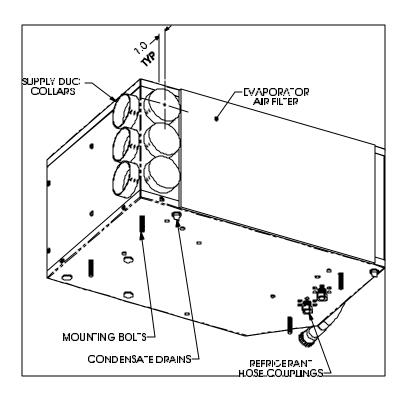
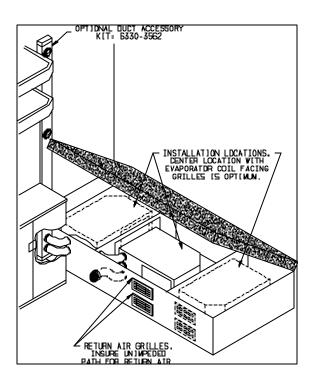


FIGURE 1



#### FIGURE 2

#### II. COOLING PERFORMANCE TEST SHEET

## Ambient temperature must be 80 degrees or more for this check.

Check the air temperature difference across the evaporator as follows:

- 1. Start the air conditioner in High Cool. Allow it to run at least one-half hour, longer if possible (the objective is to saturate the evaporator coil before we begin running a temperature test).
- 2. With a standard dial type or digital thermometer, measure the temperature of the air immediately entering the return air grille of the air conditioning unit.
- 3. Subtract from this temperature the temperature of the air immediately leaving the supply air louvers (if it is a ducted air conditioning unit, use the closest discharge register.

- 4. A properly running air conditioning unit should have a temperature difference of approximately 16 to 22 degrees.
- 5. Slightly less temperature differences are possible under extremely humid conditions.
- 6. Temperature differences greater than 22 degrees are possible in warm dry weather.

Restricted air flow over the evaporator may also cause greater than 22 degrees temperature differences. If the evaporator air flow is restricted, a loss of capacity will result even though the air temperature difference may be greater. Restricted air flow may also lead to a freeze-up situation. The compressor will shut down by the freeze switch periodically to prevent evaporator freeze-up.

#### III. CHECKING THE COMPRESSOR AMPERAGE

- 1. Start the air conditioner in High Cool. Allow it to run at least one-half hour, longer if possible.
- 2. Measure the Outdoor Ambient Temperature. (Air temperature entering the condenser coil.)
- 3. Read the Compressor Amperage with an Ammeter on the Common Wire (Purple) to the Compressor (See Figure 1).
- 4. Compare this reading to the Compressor Rated Load Amp's (RLA) printed on the air conditioning rating plate.

Rated Load Amps = Design Rated Conditions 95 Degrees F. Outdoor Temperature 80 Degrees F. Indoor Temperature 67 Degree Wet Bulb Temperature Approximately 50% relative humidity

For 6330- and 6330A Units
The compressor "Common" is the purple wire from the indicated relay.

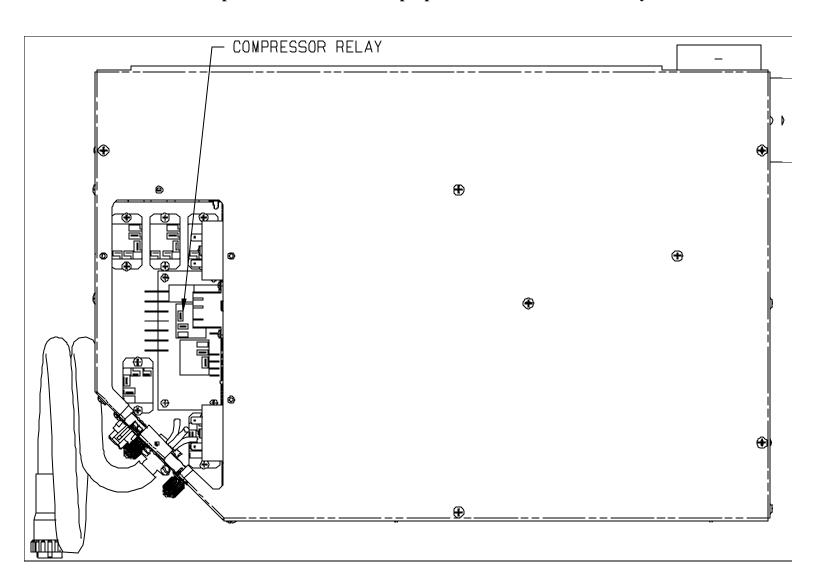


FIGURE 3

 $\label{eq:compressor} For \, 6330B \,\, Models$  The compressor "Common" is the purple wire from the indicated relay.

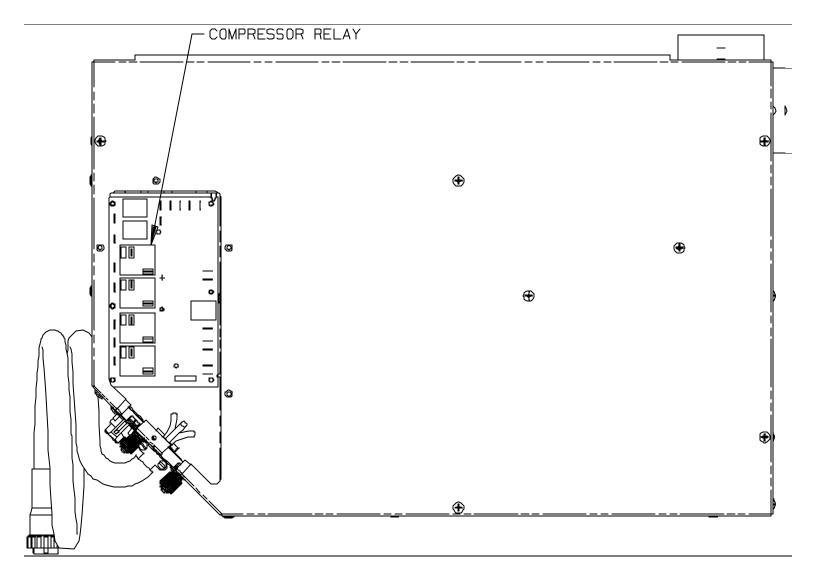


FIGURE 4

5. Actual measured compressor amperage should be adjusted based on the following chart. (Calculations are only approximate.)

Outdoor Temperature	<b>Calculated Compressor Amps</b>
95 Degrees F.	Equal to RLA
100 Degrees F.	RLA + .7 Amps
105 Degrees F.	RLA + 1.4 Amps
110 Degrees F.	RLA + 2.1 Amp s
90 Degrees F.	RLA7 Amps
85 Degrees F.	RLA - 1.4 Amps
80 Degrees F.	RLA - 2.1 Amps

#### IV. MAINTENANCE

#### I. Owner

One of the biggest advantages to your new RV 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 or replacement of the filters.

Filters are made from long life non-allergenic foam which can be cleaned and reused, and which completely filter the circulated air when the air conditioner is in operation. If the filters are not cleaned at regular intervals, they may become partially 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. Cleaning may be with water or air.

#### **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 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.

#### I. Cleaning and/or changing the filters:

The filter is attached to the indoor section with velcro tabs. Simply pull off to clean. Push on to reinstall.

#### NOTE

Insure a pathway for air entering the filter has not been blocked by stored items.

#### II. Service Person

- A. Electrical All electrical work and/or inspection should be performed only by qualified service personnel. Contact your nearest RV Products Service Agent if electrical problems should arise.
- B. Mechanical Integrity The air conditioner should be inspected periodically to be sure that the bolts which secure the unit are tight and in good shape.

#### V. WALL THERMOSTAT OPERATION

Refer to the operation manual provided with the thermostat.

#### VI. WARRANTY SERVICE

Let's face it. Sometimes even the best products may need service. To obtain warranty service on your RV Products air conditioner, please contact your selling dealer.

All written correspondence should be directed to:

RV Products
A Division of Airxcel, Inc.
P.O. Box 4020
Wichita, KS 67204
316-219-4567

#### **IMPORTANT**

- 1. Carefully read your limited two year product warranty which is packed with the product.
- Inquiries about your RV Products air conditioner must include the model and serial numbers and the date of purchase. The model and serial numbers can be found on the I.D. label located on the air conditioner.