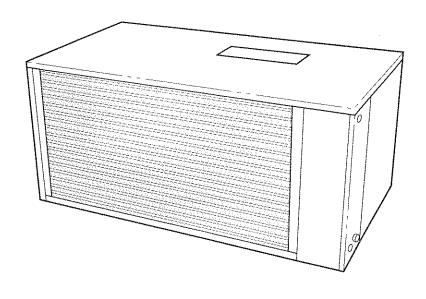
# OWNER'S MANUAL RV CENTRAL AIR CONDITIONER



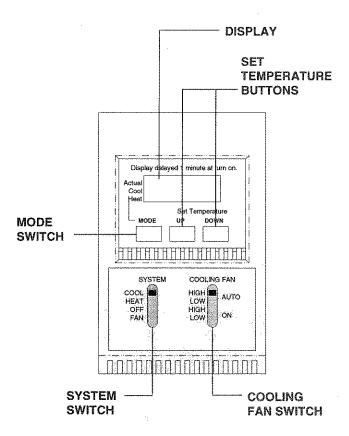
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## USE AND CARE INSTRUCTIONS FOR YOUR CENTRAL AIR CONDITIONER

#### **OPERATING INSTRUCTIONS**

Your vehicle is equipped with SCS innovative central air conditioning system. It is designed to provide cooling performance equivalent to two roof mounted units without their appearance, noise, and water drain problems. The system features dual compressors which operate simultaneously when cooling demands are high. As the interior temperature nears the desired level, the second compressor cycles off and the blower speed is reduced to provide even quieter operation. Each compressor is connected to a separate 20 amp circuit breaker. You should consult your vehicle manufacturer's manual to find the names and location of these circuit breakers. As is the case with dual roof mounted units, 50 amp shore power service or generator power is required to operate both compressors. However, the unit can be operated in single compressor mode on occasions when the available shore power is less than 50 amps.

The system is controlled by an electronic wall mounted thermostat. When the furnace is connected to this thermostat, it will be controlled by the same device. The thermostat switches and display are described as follows:



- 1. DISPLAY Will show the ACTUAL room temperature or the COOL thermostat setting or the HEAT thermostat setting depending upon the MODE selected. The display will remain illuminated unless the SYSTEM switch has been placed in the OFF position for longer than two minutes or the power to the thermostat has been disconnected for longer than ten minutes.
- 2. MODE SWITCH Selects ACTUAL, COOL, or HEAT modes when depressed momentarily. A pointer in the display window will indicate the selected mode. Each time the MODE switch is depressed, the pointer advances to the next mode. If the display is left in either the COOL or HEAT modes, the indicator will return to the ACTUAL mode in approximately three minutes. The functions of the individual modes are:
  - ACTUAL Displays the current actual room temperature.
  - COOL Indicates the temperature at which the air conditioner will cycle on or off.
  - HEAT Indicates the temperature at which the furnace will cycle on or off.

The MODE switch may be depressed at any time to view the individual mode settings without affecting the operation of the system.

3. SET TEMPERATURE BUTTONS - Located to the right of the MODE switch, they are labeled "UP" and "DOWN". To change the set point for air conditioner or furnace operation, depress the MODE switch to select either COOL or HEAT. The display will indicate the current set point for the mode selected. Press the UP or the DOWN button repeatedly until the desired set point is displayed. After changing the cooling or heating set point, press the MODE switch to return the indicator to ACTUAL. If the indicator is left in either the COOL or HEAT modes, it will automatically return to ACTUAL in approximately three minutes. After changing the cooling or heating set point, the thermostat requires 15 to 30 seconds to recognize the new setting. Note: if the SYS-TEM switch has been placed in the OFF position for longer than two minutes or if the power to the thermostat has been disconnected for longer than ten minutes, the thermostat set points will revert to 78° for cooling and 68° for heating. In any case, the heating set point must be lower than the cooling set point in order for the air conditioner to operate.

- **4. SYSTEM SWITCH** Controls the operation of the heating and air conditioning systems. It has four positions:
  - COOL Activates the air conditioner which will cycle from the COOL set point.
  - HEAT- Activates the heating system which will cycle from the HEAT set point .
  - OFF Disables all thermostat functions. When in this position, the display will indicate room temperature until backup power is depleted (approximately two minutes).
  - FAN When this position is selected, the air conditioner blower will operate continuously.
- **5. COOLING FAN SWITCH** Controls the operation of the air conditioning system only if the SYSTEM switch is placed in the COOL position. With the SYSTEM switch in any other position, the FAN switch will have no effect on the operation of the heating or cooling systems.

**IMPORTANT:** Please read and understand the functions of this switch. It provides the user complete control of the dual stage characteristics of the central air conditioning system. However, since the system requires a minimum of three minutes for internal pressures to equalize following shut down, care must be used when operating this switch. Changing from a LOW to a HIGH position without allowing adequate time for pressure equalization could result in "tripping" a circuit breaker or stalling the generator. The switch positions and resulting functions are as follows:

HIGH AUTO - This is the normal position for air conditioner operation. When in this position, the thermostat will automatically control the dual stage functions of the unit. If the actual room temperature is greater than 2° above the COOL set point, both compressors will function and the blower will operate at high speed. When the room temperature falls to within 2° of the COOL set point, the second compressor will switch off and the blower speed will change to low. If a 0.2° rise in room temperature is detected, the system will automatically switch back to dual compressor/high blower mode. When the room temperature reaches the COOL set point, both compressors and the blower will switch off.

LOW AUTO - This position disables the second compressor and reduces both the indoor and outdoor blower speeds. The first compressor will operate until the actual room temperature reaches the COOL set point and the unit cycles off. Use this position when operating the air conditioner with the coach shore power connected to a utility having less than 50 amp service. CAUTION: After switching to this position, wait at least three minutes before changing to a HIGH fan setting.

HIGH ON - This position functions exactly the same as HIGH AUTO except that the blower operates continuously. When the room temperature falls to within 2° of the COOL set point, the indoor and outdoor blowers will switch to low speed. This position can be used if you desire constant air circulation. It will provide continuous air movement, constant air filtration, and near even temperatures from floor to ceiling.

LOW ON - This position functions exactly the same as LOW AUTO except that the blower operates continuously at low speed. The second compressor will be disabled and the outdoor fan will operate at low speed. The first compressor will cycle from the COOL set point. **CAUTION:** After switching to this position, wait at least three minutes before changing to a HIGH fan setting.

### WHEN TO USE "LOW AUTO" OR "LOW ON" COOLING FAN POSITIONS:

- When available shore power is not sufficient to operate both compressors (less than 50 amps).
- When outdoor conditions permit the air conditioner to maintain the desired room temperature with only one compressor operational.
- When quieter operation of the outdoor fan is desired.

#### SYSTEM OPERATION TIPS

- Keep the filter clean. Your system will operate more efficiently and provide better conditioned air. See your vehicle manufacturer's manual for the location of the filter.
- 2. Arrange your furniture and drapes so that the supply and return air registers and grilles are not obstructed.
- Close doors and windows. This will reduce the cooling load on your system for more economical operation.
- 4. Avoid excessive use of exhaust fans.
- 5. Remember to observe the three minute wait period when changing COOLING FAN settings.

#### MAINTENANCE

1. Cleaning the air filter:

Glass Fiber - (Throwaway) This is a disposable type of filter. Inspect monthly and replace when necessary. Vehicles with return air grilles at floor level will normally require more frequent attention to the filter.

Aluminum Mesh - Wash with detergent and water. Air dry thoroughly and reinstall.

Plastic Fiber - Wash with detergent and water or vacuum clean, then reinstall.

CAUTION: DO NOT OPERATE YOUR SYSTEM FOR EXTENDED PERIODS WITHOUT A FILTER. THE DUST ENTRAINED IN THE AIR MAY PACK INTO THE FIN AREA OF THE INDOOR COIL CREATING A CONDITION WHICH COULD REQUIRE EXTENSIVE REPAIRS.

- 2. If the condenser (outdoor) coil is allowed to become restricted by dirt or lint, the system efficiency will suffer and abnormally high refrigerant operating pressures will result. To correct this condition, periodically clean the fins with a soft bristled brush.
- 3. If you know or suspect that either of the compressors is not working, place the thermostat SYSTEM switch in the OFF or FAN position. This will stop the operation of the cooling system until repairs can be made.
- 4. If you suspect a problem has developed with your unit, we suggest you check the following service hints before calling for repair.

#### PROBLEM - REMEDY

#### NO COOLING

- Set the thermostat correctly. Place the SYSTEM switch in the OFF position. Wait three minutes bereturning the SYSTEM switch to COOL position and adjusting set points.
- Check the circuit breakers for both refrigeration systems. If power is interrupted to circuit #1, the system will be completely inoperative. If power is interrupted to circuit #2, the second compressor and high speed blower will be disabled.
- Check the shore power circuit breaker at its' source.
   If it is "tripped" and is rated less than 50 amps,
   operate the air conditioner in single compressor
   mode (see the COOLING FAN SWITCH instructions).

4. If operating from generator power, check the generator's circuit breaker.

#### **INSUFFICIENT COOLING**

- 1. Check air filter.
- 2. Check for blocked return air system.
- 3. Check breaker for circuit #2
- 4. Check to see if supply registers are open.

Please do not attempt any servicing operation with which you are not familiar or experienced. If you have a problem, we will gladly assist you in correcting it or direct you to a qualified servicing technician.

#### COMPONENT LAYOUT

