

AIRXCEL, INC.

ROOF MOUNTED

SOLAR POWERED

BATTERY MAINTENANCE SYSTEM

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

INSTALLATION INSTRUCTIONS FOR SOLAR BATTERY MAINTAINER ON MACH 8 SERIES ROOF TOP UNITS

I. Mounting the solar panel to the roof top unit



- A. Remove the front two screws and washers from the solar ready roof top unit. These will be used for mounting the solar panel.
- B. The solar ready roof top unit is provided with a sheathed cable terminated with a "trailer" plug that allows connection of the solar panel to the charging indicator and battery. The end of this cable will be protruding through a hole on top of the unit and taped to the unit shroud. Remove the tape and insert the plug on the solar panel into the unit cable plug until they are fully engaged.
- C. Insert the plug connection into the hole in the shroud. It may be necessary to lift the shroud up to provide clearance for the plugs between the shroud and the evaporator housing.
- D. Using the two washers as spacers on the plug end of the solar panel, re-assemble the two screws through the holes in the solar panel plate and into the threaded inserts of the roof top unit. Initially start the screws by hand to prevent cross-threading. Using a Phillips screw driver or an electric drill with a Phillips bit, tighten the screws until the solar panel rests snug against the unit shroud and washers.
- E. Clean the solar panel glass surface with any good quality glass cleaner (non-abrasive) to remove any smudges or fingerprints encountered during handling. Installation of the solar panel and upper unit wiring is now complete.

II. Wiring the charging indicator and battery



The charging indicator or solar monitor provides an indication of when the battery is being charged and prevents battery discharge when it is not being charged. If there is sunlight to provide ample current and the battery is not already fully charged, the charging indicator will illuminate.

- A. Install the charging indicator in the ceiling grille by running the wires through the solar monitor label and through one of the square grid holes in the ceiling assembly grille (in the area of the filter). The ceiling assembly air filter will need to be slit to allow the wires to pass through it.
- B. Assemble the plastic plug and receptacle housings together that were provided with the charging indicator. These housings are directional and will only assemble one way. Insert the socket terminals on the charging indicator wires into the plastic receptacle housing. Insure that both terminals "snap" into housing and do not pull out. The red charging indicator wire <u>must</u> assemble in line with the red wire already assembled in the plug housing.
- C. Insert the yellow wire in the roof top unit charger cable into the plug housing. This wire <u>must</u> assemble in line with the yellow wire from the charging indicator. Insure that the pin terminal "snaps" into the housing and does not pull out.
- D. Wiring from the battery should be of 18 gauge minimum. Strip back insulation on the positive battery wire and crimp with the red wire in the plug housing. Strip back insulation on the negative battery wire and crimp with the black wire in the roof top unit charger cable.
- E. Connect the battery wires to the proper terminals on the 12 volt battery.

SOME THINGS YOU WANTED TO KNOW ABOUT AIRXCEL, INC. SOLAR PANEL POWER

- 1. Solar electric generation (technically known as photovoltaic power) is the technology of producing electricity directly from sunlight. Photovoltaic devices are solid state semiconductor devices that convert light directly into electricity. Since the photovoltaic process is completely solid state and self-contained with no moving parts, there are no materials consumed or emitted.
- 2. The Airxcel, Inc. roof mounted solar powered battery maintenance system provides a single five (5) watt solar panel. The solar panel will generate, at a minimum, enough power to maintain your vehicle battery at its last operated charge value during non-usage periods.
- 3. Solar panels will operate on cloudy days or in partial shading. Line of sight restrictions (light to panel) do reduce the system battery maintenance capabilities. In total darkened conditions (no light), the Airxcel, Inc. solar powered battery maintenance system will not allow vehicle battery discharge. The solar monitor is equipped with a blocking diode that prevents the battery from discharging.
- 4. The red lamp indicator located in the L.E.D. ceiling assembly should be illuminated whenever the battery is being charged. It will not illuminate if the battery is not accepting charge.
- 5. For optimum system performance, keep the solar panel clean, using the same product used for cleaning your windshield, avoiding harsh chemicals. During winter months, accumulation of snow will reduce the effectiveness of the panel and should be carefully brushed away.

Oh, By The Way Why Not Gain Long Term Service Confidence

Purchase our Air Conditioning Optional Three (3) Year Parts Contract

To obtain this optional three (3) year parts contract, fill out the card stapled to the Customer Envelope included with your air conditioner and send it with a check or money order in the amount of \$89.95 to:

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

The optional three (3) year parts contract must be applied for **within ninety** (90) days from the purchase date of the air conditioner or the recreation vehicle if the air conditioner is original equipment.