The EMS is an automatic system that minimizes the chance of electrical over-loads by controlling built-in loads. It does this without any user interface. It constantly senses the amount of electrical power drawn by all the loads in the RV and will remove power from four of the built-in loads (water heater, main air conditioner, boost air conditioner, and washer/dryer) to prevent an over-load from tripping a circuit breaker.

**OPERATION FROM 30 AMP SERVICE**

Plug the trailer into a 30 Amp supply outlet. The “30 Amps MAX CURRENT” LED will be on and ALL the remaining LED’s on the EMS panel will be off. Shortly, the LED’s will begin to come on, in order from bottom to top, indicating that power is applied to those respective loads. If there is insufficient power available, all the loads may not be turned on.

When the total current drawn by ALL the loads in the trailer exceeds 30 Amps, the EMS will begin removing power from the loads in the reverse order, (turning off the top load first,) until the total load is less than 30 Amps. This may happen when large power-drawing loads such as the microwave oven, hair dryer, are being used. The EMS will return power to the controlled loads automatically when it becomes available.

The EMS has built-in timers to prevent rapid cycling of the air conditioners. It will delay application of power for approximately two minutes from the time either unit is turned off.

**OPERATION FROM 20 AMP SERVICE**

When a 30 Amp supply outlet is not available, the system can be set to operate from a 20 Amp outlet. When set in this mode, the EMS will turn off loads when the total current drawn by ALL the loads in the trailer exceeds 20 Amps.

To set the system for 20 Amp service, plug the trailer into the 20 Amp outlet, using an adaptor. After the power is applied, press the “30/20 AMPS SE-LECT” switch on the front panel of the EMS. The “30 AMPS MAX CURRENT” LED indicator will go off, indicating the system is set for 20 Amps. If the total current drawn now exceeds 20 Amps, the controlled loads will be turned off. This will result in fewer loads being operated at one time, but will minimize circuit breaker tripping.

If power to the system is interrupted, it will automatically come back on in the 30 Amp mode.
ENERGY MANAGEMENT SYSTEM

OWNERS GUIDE

GENERAL OPERATION - Troubleshooting Guide

If you wish to use an appliance which the EMS has turned off due to lack of power, it will be necessary to turn other appliances off in order to be able to use that appliance. For example, if you wish to run the Air, but the EMS Air indicator light is off, you will have to turn off appliances such as the washer, microwave, coffee pot, toaster, or hair dryer.

A. Load not operating, LED indicator on.
   1. Load switch/control settings not set properly. Check for proper control settings on appliance.
   2. Circuit breaker may be tripped. Check 120 volt circuit breakers and reset if necessary.
   3. Less than two minutes since air conditioner has shut off. Wait two minutes.

B. Load not operating, some indicator LED’s are off.
   1. Insufficient power available to operate all loads. Turn off unwanted loads.
   2. Less than two minutes since air conditioner has shut off. Wait two minutes.

C. All loads off, all indicator Led’s off.
   1. No 12 volt power to EMS, check 12 volt fuse,F12, (5 Amp) in 12 volt fuse section.
   2. No 120 volt power to EMS, check Main Circuit Breaker and all branch breakers. One of the branch breakers supplies power to the EMS and the entire system will be off if that branch breaker is off.