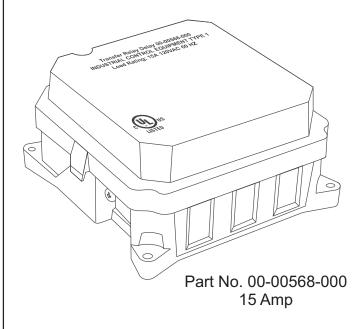
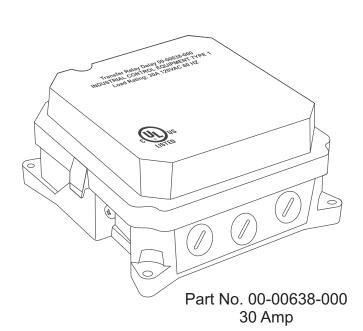
### SERVICE MANUAL





### PRODUCT DESCRIPTION

The **TRANSFER RELAY DELAY** is intended to be used in an RV to automatically switch an air conditioner's power source from shore power to the generator. Normally the air conditioner will receive power from the shore power input. When the generator is started, its power appears at the generator input to the **TRANSFER RELAY DELAY**. After an approximate 20 second delay to allow the generator to warm up, the air conditioner will receive power from the generator.

Both power sources are brought into the box and connected to the relay. The power is then fed through the relay to the air conditioner from the appropriate source. When the generator is supplying power, the air conditioner will operate from the generator.

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## SERVICE MANUAL

#### **HOW IT WORKS**

The **TRANSFER RELAY DELAY** utilizes a double pole-double throw relay to select the power source for the air conditioner. If the generator is off, the relay will be in the normally closed position and the shore power input will be applied to the air conditioner. If the generator is started, the electronic circuitry on the printed board will sense it and after an approximate 20 second delay, will pull the relay in, connecting the air conditioner to the generator. By using a double pole relay, both the line and neutral leads are switched. This prevents the generator from possibly feeding back into the power line.

### SERVICING THE UNIT

There are no serviceable components in this unit. If it is not working, replace the entire unit. To remove the cover from the unit, remove the single hex head screw at the center bottom of the cover. Before removing the screw, be sure all power is off. Slide the cover from under the top lip of the box. The connections to the unit will all be visible. (See Figure 1.) To remove the printed circuit board, remove all the six wires from the board. The board is held in the box with four plastic fasteners. Release each of these fasteners by squeezing the latch and gently pull the board out.

#### WARNING:

The Relay Delay operates from both the shore power cord and the generator. Lethal voltages are present inside this box. Before removing the cover, be sure the coach is disconnected from shore power and the generator is not operating.

All servicing of this box should be done only by a qualified Service Technician.

Tools required: Line voltage test light, AC voltmeter

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## SERVICE MANUAL

### **Trouble Shooting**

The controller is a simple circuit which utilizes a double pole-double throw relay to switch between two power sources, such as shore power and the generator.

#### **Problem**

The air conditioner will not operate from shore power.

The air conditioner will not operate from the generator.

### Possible Cause/Solution

The circuit breaker in the distribution box for the air conditioner is tripped. Reset the circuit breaker.

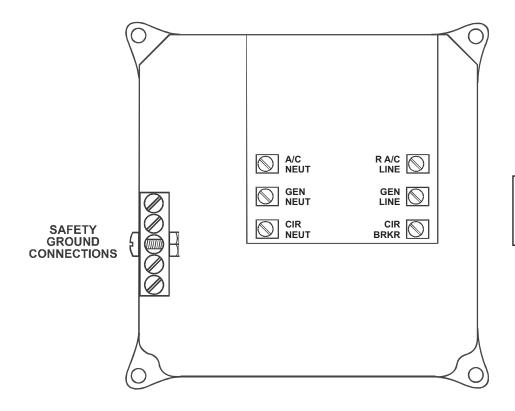
The air conditioner is not turned on. Check the switch settings of the air conditioner.

The circuit breaker on the generator is tripped. Reset the circuit breakers on the generator.

The air conditioner is not turned on. Check the switch settings of the air conditioner.

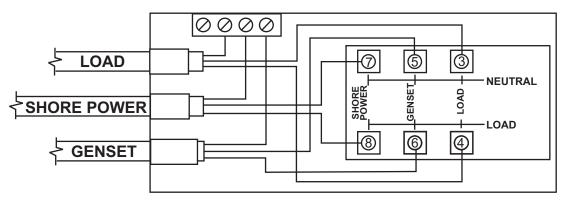
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## SERVICE MANUAL



View with cover removed Figure 1

## Equivalent Circuit Figure 2



- 3 A/C NEUTRAL
- 4 A/C LINE
- **5 GENSET NEUTRAL**
- 6 GENSET LINE
- 7 SHORE NEUTRAL
- 8 SHORE LINE

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