

50 AMP TRANSFER RELAY - SINGLE INPUT

INSTALLATION & SERVICE MANUAL



Part Number 00-00803-100

CAUTION

The 50 Amp Transfer Relay connects the power from the shore cord or the generator to the coach's distribution panel. Power from both these sources is fed into the box. The full power of these sources is available within this box. Inadvertent shorts inside this box could result in severe damage and/or injury.

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

Tools Required:

Accurate Voltmeter (*digital read-out preferred*).

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HOW IT WORKS

The 50 Amp Transfer Relay is used to transfer the power source of a coach between the shore power and the generator. Power from the shore power cord is fed to the normally closed contacts of two contactors. This allows the power from both lines of the shore cord to pass through into the coach distribution panel.

Power from the generator is fed to the normally open contacts and to a delay circuit on the printed circuit board. When the power from the generator is applied, the delay circuit senses the power from Line 1 and applies DC power to the contactor coils, after approximately 15 seconds. This pulls in the two contactors, applying the power from the generator to the coach.

Typical connections for 50 Amp service are shown in Figure 3.

The unit can also be wired to act as a transfer between both lines of a 5.5 KW or 6.5 KW generator and a 30 Amp shore power cord. *The connection diagram for this unit is shown in Figure 4.*

SERVICING

There are no dealer serviceable parts in this box.

Replacement of a defective box is the only way to correct a failed unit.

CAUTION

To gain access to the connections:

BEFORE ATTEMPTING TO REMOVE THE COVER, BE SURE THE POWER FROM BOTH THE SHORE CORD AND GENERATOR ARE OFF. Remove the two hex head screws at either side of the row of connectors. Pull the cover forward and lifting up, remove the cover to expose the interior of the unit. **All servicing within this box should be done only by a qualified Service Technician.**

REMOVAL AND REPLACEMENT

IMPORTANT: Remove the cover to gain access to the connections.

Make a diagram of the all the connections before removing any wires.

First, unscrew the six cable clamp screws releasing the cables, then loosen the set screws of the 12 connectors along the edge of the printed circuit board, in order. This will allow the cables to be removed. Lastly, loosen the ground connector screw to remove the safety ground from the unit.

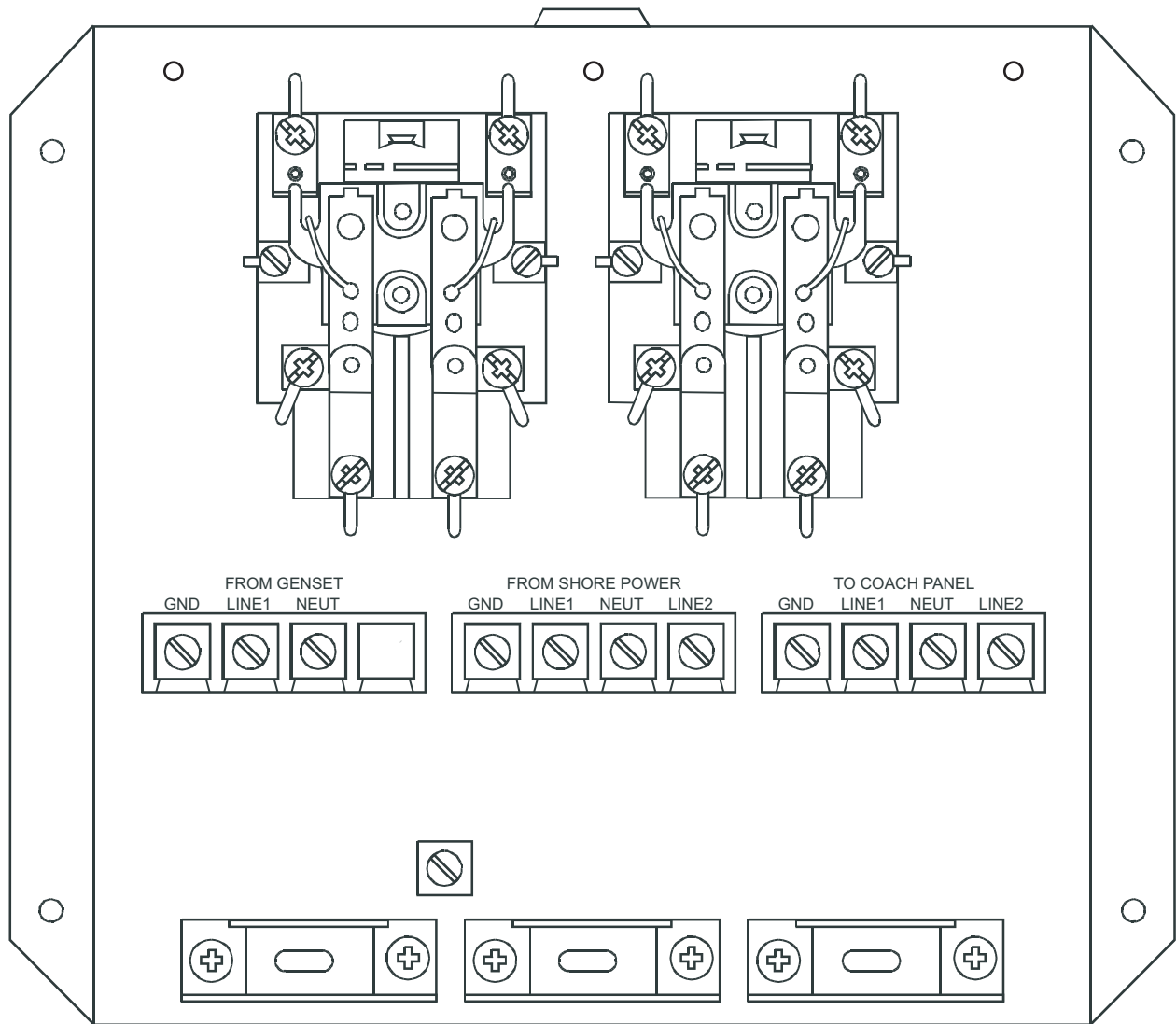
Unscrew the four mounting screws and remove the unit from the coach.

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Cover removed
(INSIDE VIEW)

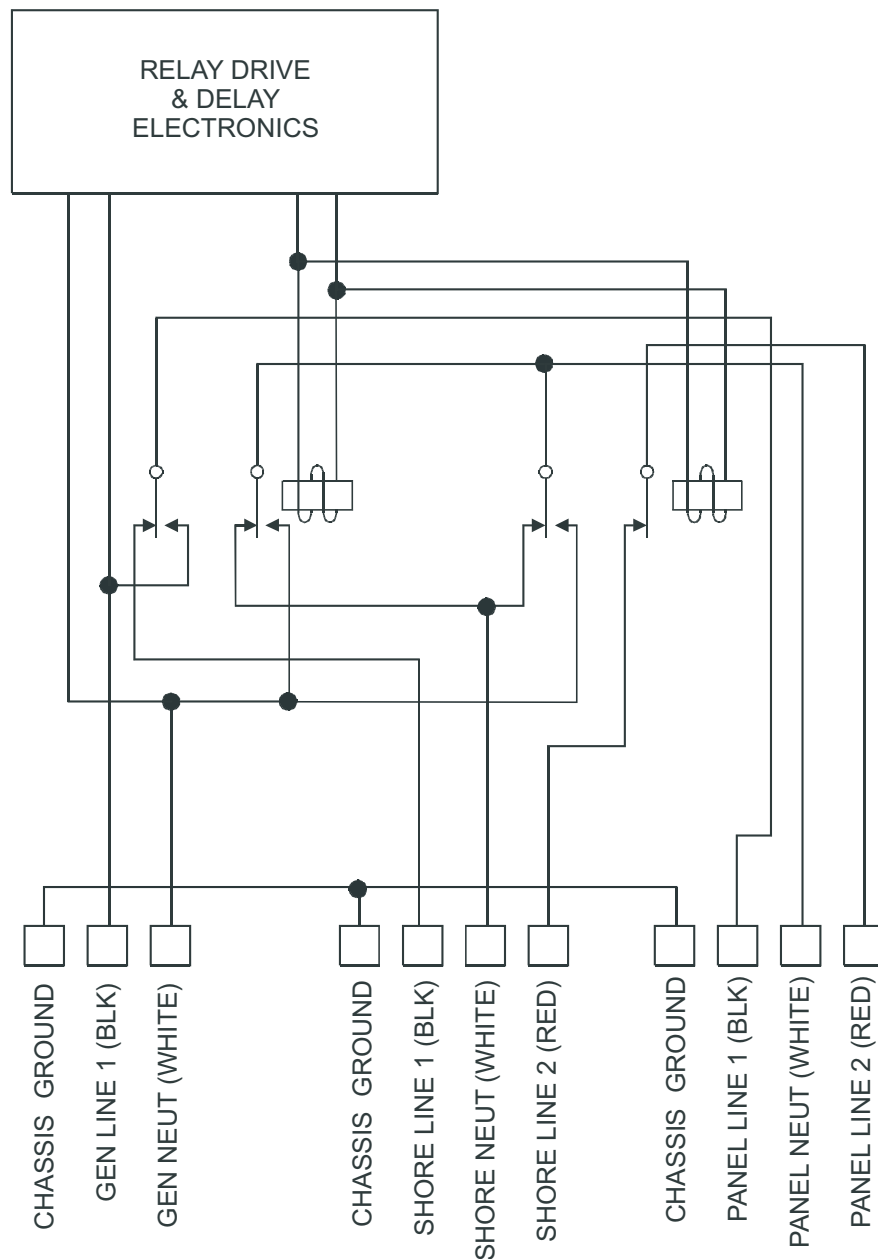
FIGURE 1

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Equivalent Circuit

FIGURE 2

50 AMP TRANSFER RELAY - SINGLE INPUT

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TYPICAL 50 AMP SERVICE CONNECTIONS

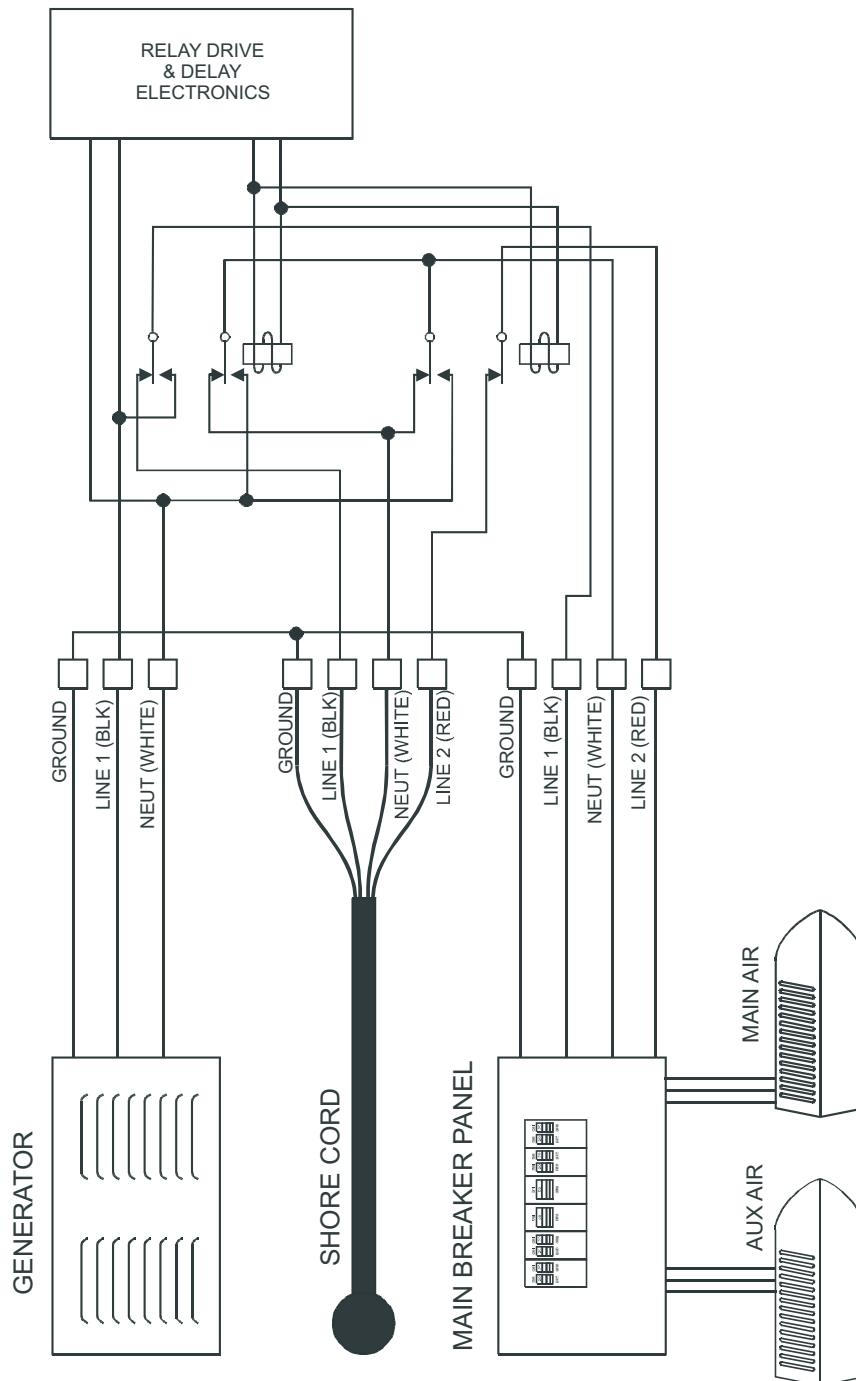


FIGURE 3

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TYPICAL 30 AMP SERVICE CONNECTIONS

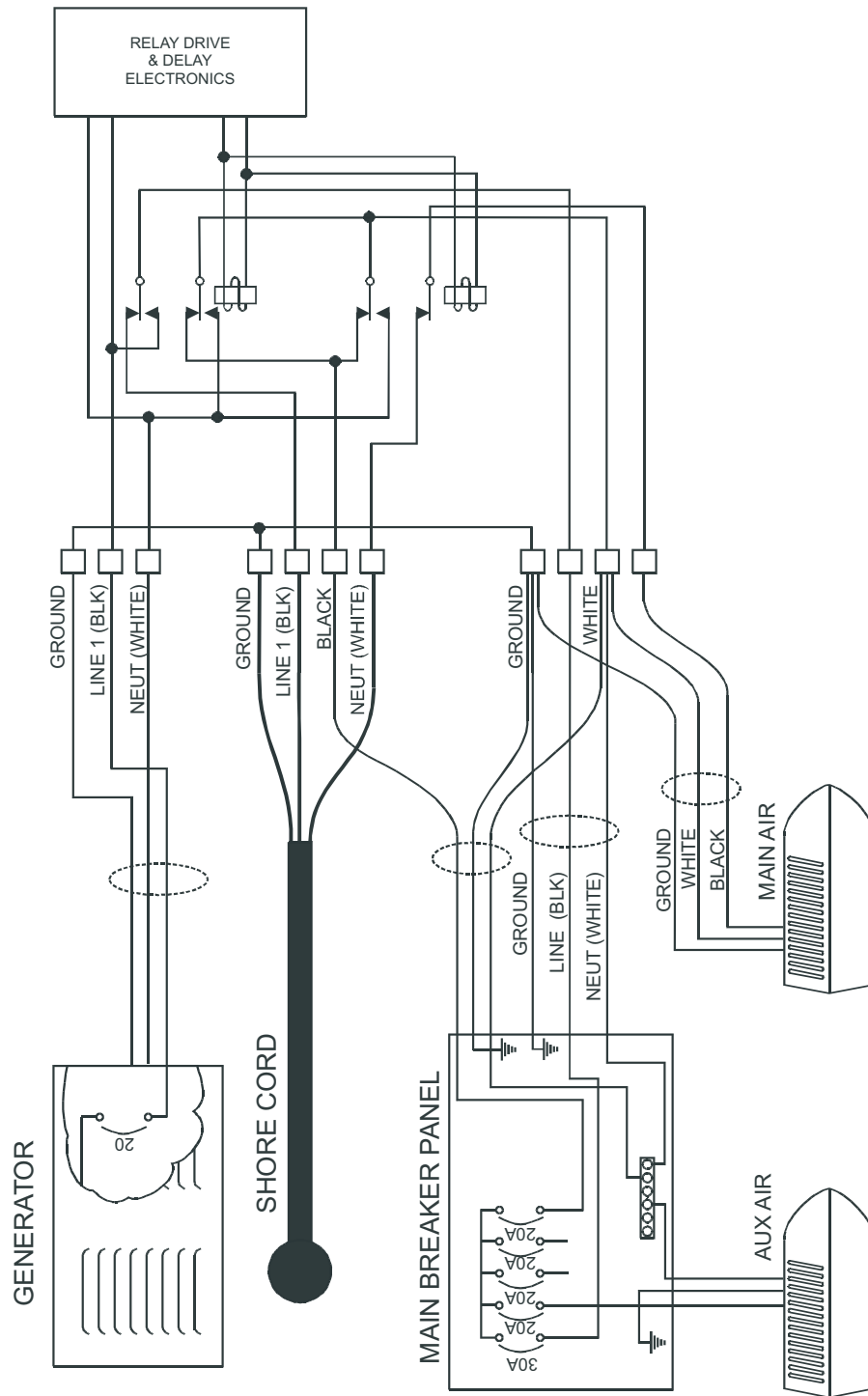


FIGURE 4

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TROUBLE SHOOTING

No power to the coach from shore cord.

Check to be sure shore outlet has power.
Reset shore circuit breakers to be sure.
Measure the voltage from Line 1 to Neutral at the Transfer Relay terminals.

Check the circuit breakers in the coach distribution box to be sure they are not tripped.
Reset them to be sure.

Replace Transfer relay.

No power from generator.

Check to be sure generator has power. Reset the generator circuit breakers to be sure.
Measure the voltage from Line 1 to Neutral at the Transfer Relay terminals.

Check the circuit breakers in the coach distribution box to be sure they are not tripped.

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