Diesel-Burner Controller:

The diesel-burner controller operates all the components of the diesel-burner head and safely shuts the heater **OFF** in the event of an overheat, flameout, and low voltage condition. It also receives diesel-burner operation status signals from the flame sensor, VDC control thermostat, and VDC high-limit thermostat.

Component Test:

The following conditions must exist prior to performing the diesel-burner controller circuit tests on the following page. If one of the conditions below does not exist, please contact our technical support department at 1-800-685-4298 for additional assistance.

Condition #1

A battery voltage level between 11.5 to 14.0 volts DC must be present at the diesel-burner controller during all testing. It may be necessary to perform a voltage check to ensure that this condition exists. To perform the voltage check, locate the diesel-burner controller's B-plug, and insert the probes of a DC voltmeter into the B-4 (+) and B-2 (-) locations.

Condition #2

A voltage level of between 11.5 to 14.0 volts must be present at the diesel **ON/OFF** switch circuit of the diesel-burner controller during all testing. It may be necessary to perform a voltage check to ensure that this condition exists. To perform the voltage check, locate the diesel-burner controller's B-plug, and insert the probes of a DC voltmeter into the B-1 (+) and B-2 (-) locations. Turn the diesel switch **ON** and observe the voltage level.

Ground Circuit Test:

Locate the diesel-burner controller's B-plug and C-plug. Insert the probes of a DC voltmeter into the B -4 (+) and C-5 (-) locations and turn the diesel switch ON. If a voltage reading does not register on the voltmeter, the diesel-burner controller must be replaced. If voltage is present, proceed to the next circuit test.

VDC/VAC Control Thermostat Circuit Test:

Locate the diesel-burner controller's B-plug and C-plug. Insert the probes of a DC voltmeter into the C -1 (+) and B-2 (-) locations and turn the diesel switch **ON**. If a voltage reading does not register on the voltmeter, the diesel-burner controller must be replaced. If voltage is present, proceed to the next circuit test.

VDC High-Limit Thermostat Circuit Test:

Locate the diesel-burner controller's B-plug and C-plug. Insert the probes of a DC voltmeter into the C -4 (+) and B-2 (-) locations and turn the diesel switch **ON**. If a voltage reading does not register on the voltmeter, the diesel-burner controller must be replaced. If voltage is present, proceed to the next circuit test.

Motor Circuit Test:

Locate the diesel-burner controller's B-plug and C-plug. Use a jumper wire to make a connection from the C-1 location to the C-7 location. Turn the diesel switch **ON** and insert the probes of a DC voltmeter into the C-2 (+) and C-5 (-) locations. If no voltage reading registers on the voltmeter, the diesel-burner controller must be replaced. If voltage is present, proceed to the next circuit test.

Be sure to remove the jumper wire that was used to make the connection from the C-1 location to the C-7 location. A failure to do so will result in an overheating condition during normal operation.

Ignition Coil Circuit Test:

Turn the diesel switch **OFF** and locate the diesel-burner controller's C-plug. Also, locate the VDC high-limit thermostat and disconnect it's 2-way male plug from the (white plastic) 6-way female connector. Insert the probes of a DC voltmeter into the C-8 (+) and C-5 (-) locations and turn the diesel switch **ON**. If a voltage reading does not register on the voltmeter 18-25 seconds after the initial start-up the diesel-burner controller must be replaced.

NOTE: Be sure to reconnect the VDC high-limit thermostat's wires to the thermostat. The diesel-burner will not ignite during normal operation if the VDC high-limit thermostat is left disconnected.

Be sure to remove the jumper wire that was used to make the connection from the C-1 location to the C-7 location. Failure to do so will result in an overheating condition during normal operation.

Replacement Procedure:

1. Remove both the B-plug and the C-plug from the diesel-burner controller. Gently pry away each side of the diesel-burner controller bracket from the diesel-burner controller's locking posts with a flat-head screw driver. Once the locking posts have been released, pull on the diesel-burner controller to remove it from the diesel-burner head.

2. Slide the new diesel-burner controller into the diesel -burner controller bracket. Push down on the diesel -burner controller until the locking posts snap into the bracket slots.

3. Reconnect the B-plug and the C-plug.

NOTE: Be sure to install the diesel-burner controller with it's C-plug and B-plug ports facing downward. Failure to do so, will result in moisture collecting in the ports and potential damage to the diesel-burner controller's internal circuitry.

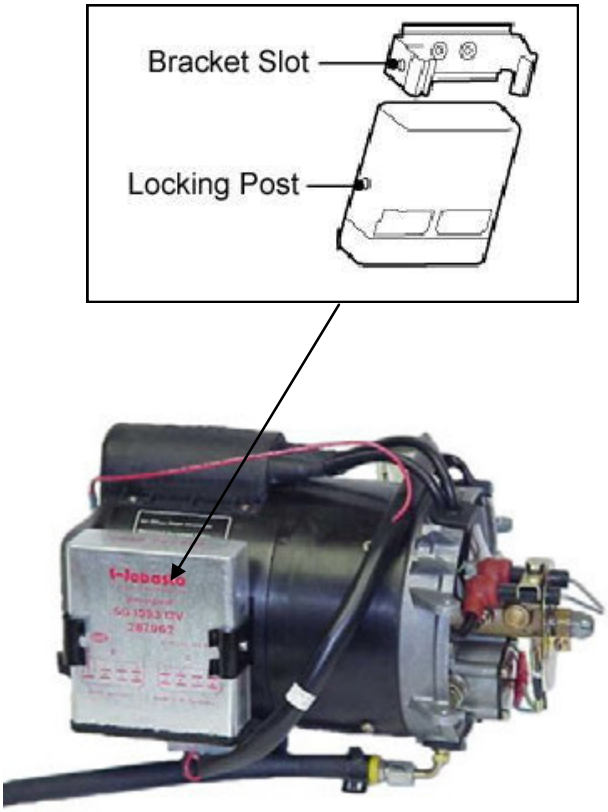
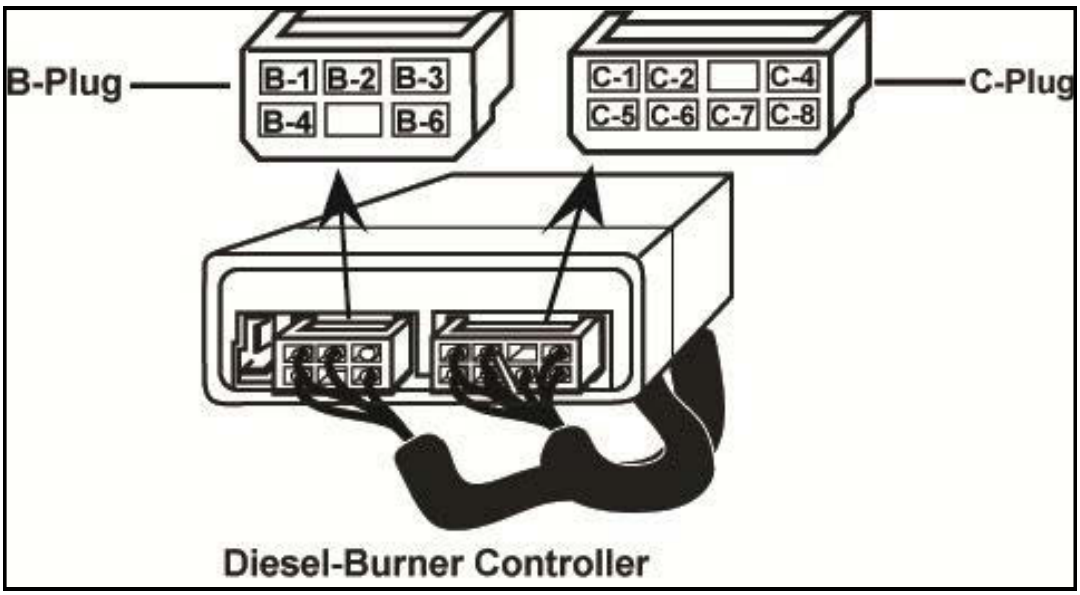


Figure 53a

Figure 53b



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Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!

DARREN KOEPP - OWNER, MY RV WORKS, INC.

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