

Radian Power Supply Replacement Instructions

Purpose and Scope

These instructions detail how to replace the Radian inverter power supply circuit board. These instructions extend to GS8048, GS8048A, GS4048A, GS7048E, GS3548E and other Radian-class inverters.

Important Safety Instructions

This procedure requires disassembly of the inverter that exposes the circuit board and electronic components to external elements that are subject to electrostatic discharge. Be sure proper grounding practices are performed when repairing or replacing electrical devices.

	<p>WARNING: Lethal Voltage</p> <p>Review the system configuration to identify all possible sources of energy. Ensure ALL sources of power are disconnected before performing any installation or maintenance on this equipment. Confirm that the terminals are de-energized using a validated voltmeter (rated for a minimum 1000 Vac and 1000 Vdc) to verify the de-energized condition.</p>
	<p>WARNING: Burn Hazard</p> <p>Internal parts can become hot during operation. Do not remove the cover during operation or touch any internal parts. Be sure to allow them sufficient time to cool down before attempting to perform any maintenance.</p>
	<p>CAUTION: Equipment Damage</p> <p>Sensitive electronics inside the equipment can be destroyed by static electricity. Be sure to discharge any static electricity built up before touching the equipment and wear appropriate protective gear.</p>

Tools Required

- #2 Phillips screwdriver
- 7 mm wrenches
- Torque wrench

Parts Included

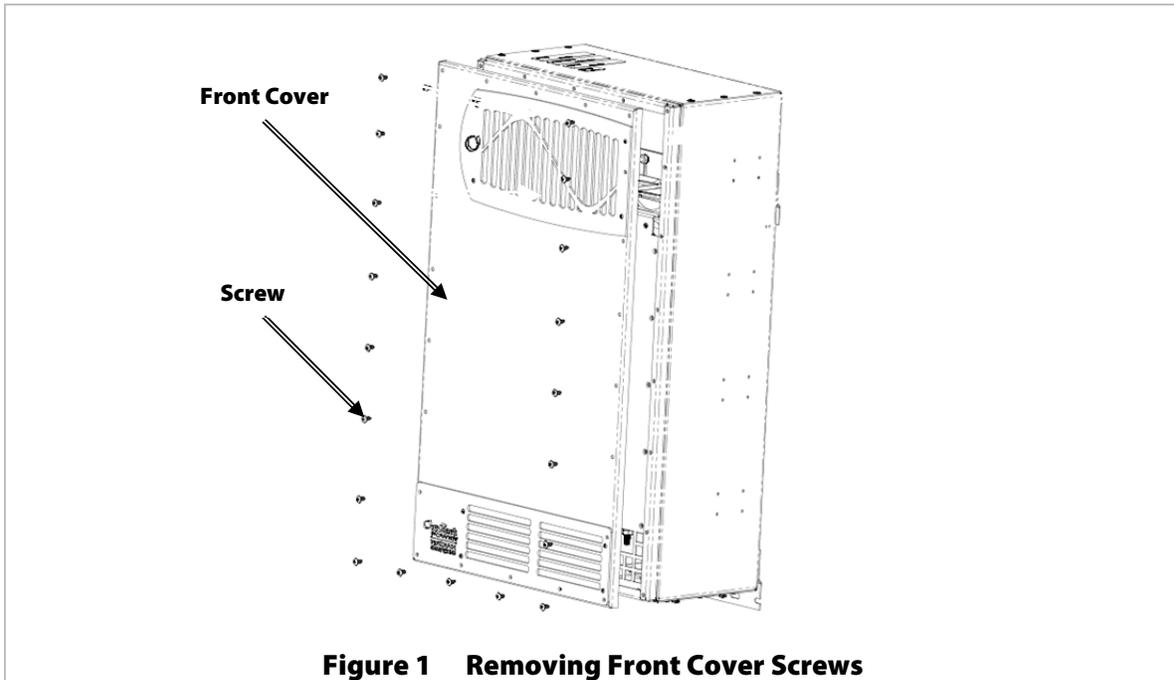
- Power supply circuit board
- M4 kep nut (three)
- 5/8" nylon spacers (3)

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Circuit Board Instructions

To replace the power supply board:

1. Disconnect power. Turn off all DC and AC sources to the inverter.
2. Remove the front cover screws using a #2 Phillips screwdriver. Carefully remove the front cover.

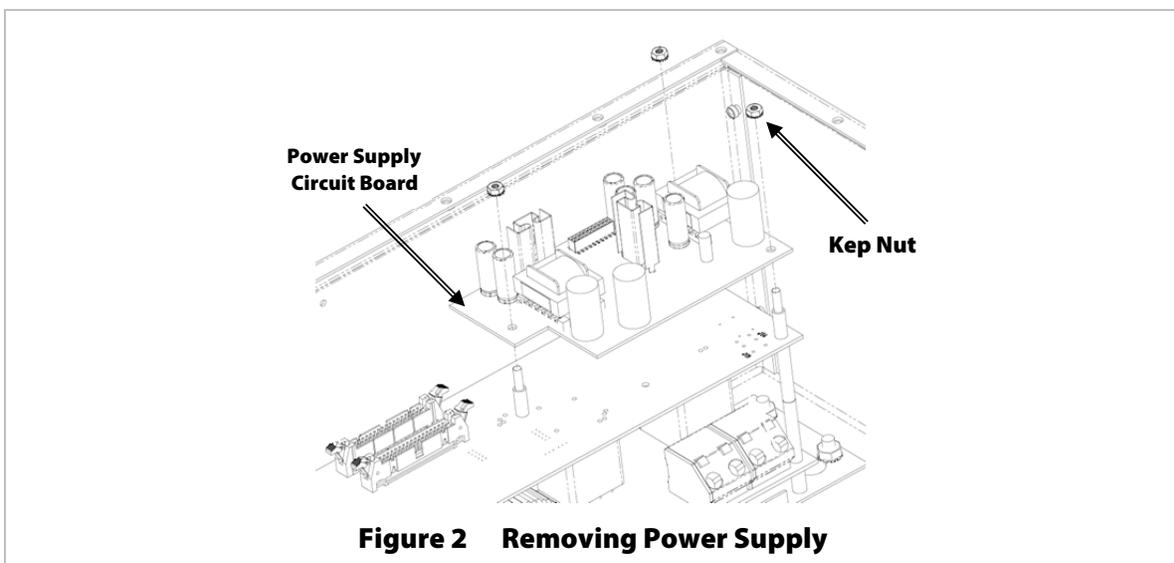


3. Using a 7 mm wrench, remove all 3 kep nuts that secure power board to threaded standoffs.
4. Remove the power supply circuit board by pulling straight up.



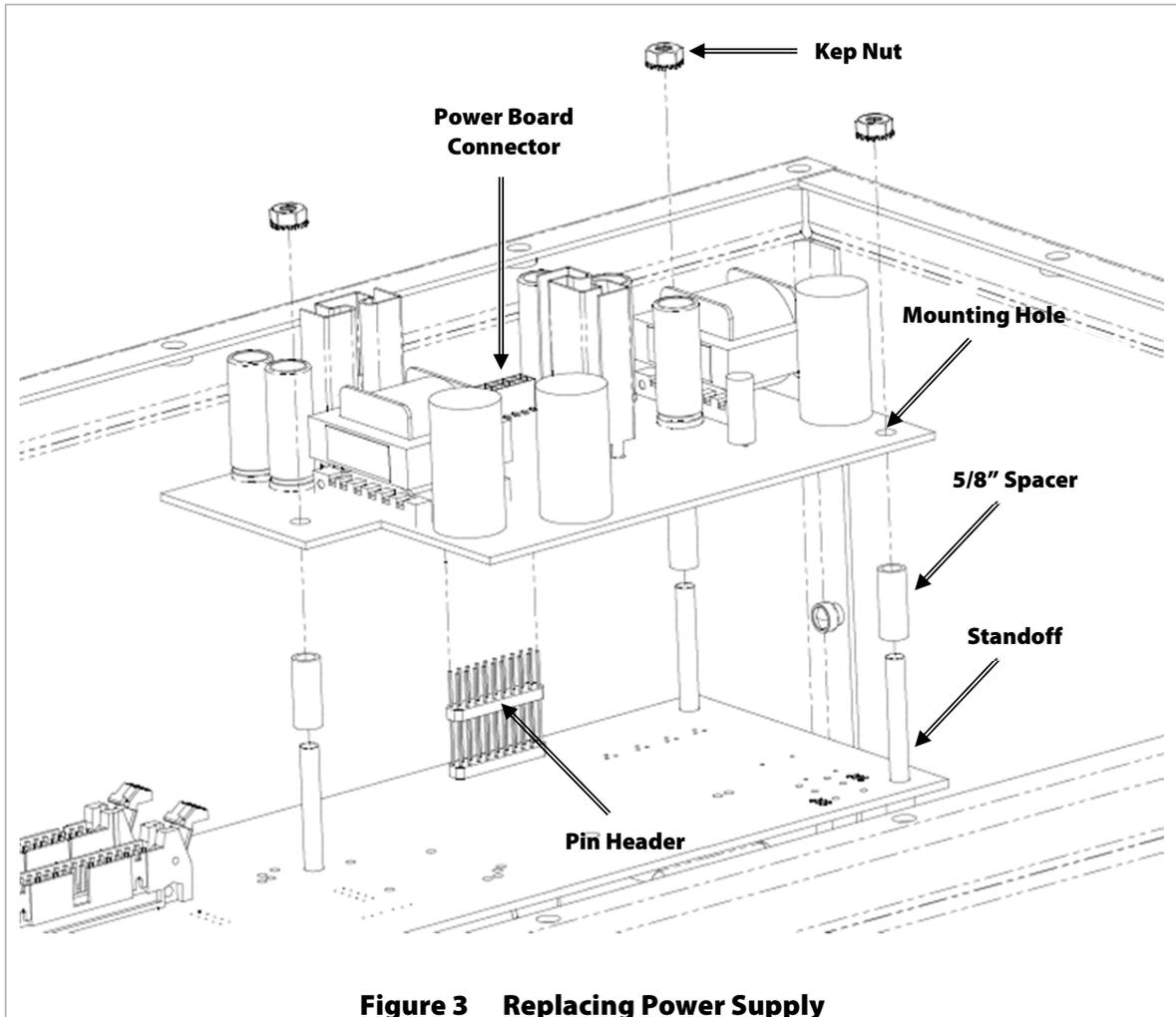
CAUTION: Equipment Damage

Use caution when removing the power supply board. The board is connected by a 20 pin header.



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5. Once power supply has been removed, replace 5/8" spacers if needed.
6. Align the pin header on the control board with the connectors on the power board. Align the standoffs with the mounting holes.
7. Push the power board straight down until the header connection is seated.
8. Replace the kep nuts and tighten to a torque value of 12 in-lb.



9. Replace the front cover and cover screws. See Figure 1 if necessary.
Circuit board replacement is complete. Verify correct system operation.

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