



RGU™ Power Supply Filter Board Replacement

Contents

This document shows how to remove and replace a power supply filter board in a Regenerative DC Bus Supply Unit (RGU).

What This Kit Contains

Using the table below, verify that you have received the appropriate items in your kit:

For this part:	You should receive this quantity:
power supply filter board	1

Other Items Needed

Before you begin, be sure you also have the following:

- Tools you will need for:
 - Measuring voltages
 - Removing, loosening, and tightening screws (including terminal screws)
- Documentation:
 - Your drive system schematics
 - Publication 2364F-5.01, *Regenerative DC Bus Supply Unit (RGU)– User Manual*

Safety Precautions

The following general precautions apply when servicing an RGU or a drive system lineup:



ATTENTION: Only those familiar with the drive system, the products used in the system, and the associated machinery should plan or implement the installation, startup, and future maintenance of the system. Failure to comply can result in personal injury and/or equipment damage.

ATTENTION: Verify that all sources of AC and DC power are deenergized and locked out or tagged out in accordance with the requirements of ANSI/NFPA 70E, Part II.

ATTENTION: The system may contain stored energy devices. To avoid the hazard of electrical shock, verify that all voltage on capacitors has been discharged before attempting to service, repair, or remove a drive system or its components. You should only attempt the procedures in this manual if you are qualified to do so and are familiar with solid-state control equipment and the safety procedures in publication NFPA 70E.

ATTENTION: When servicing any unit, do not drop any nuts, bolts, washers, etc. inside the unit, as they may cause a short circuit on power up.

ATTENTION: This drive system contains ESD (Electrostatic Discharge) sensitive parts and assemblies. Static control precautions are required when installing, testing, or repairing this assembly. Component damage can result if ESD control procedures are not followed. If you are not familiar with static control procedures, refer to Allen-Bradley publication 8000-4.5.2, *Guarding Against Electrostatic Damage* or any other applicable ESD protection handbook.

Special Instructions

Important: You will need to reuse parts that are removed from the unit. Place parts, in the order removed, on a clean surface.

Preliminary Steps

Before replacing the power supply filter board, shut off the power; lockout/tagout the unit; and wait five minutes for the voltage to discharge. Open the bay door to the power structure.

Replacing the Power Supply Filter Board

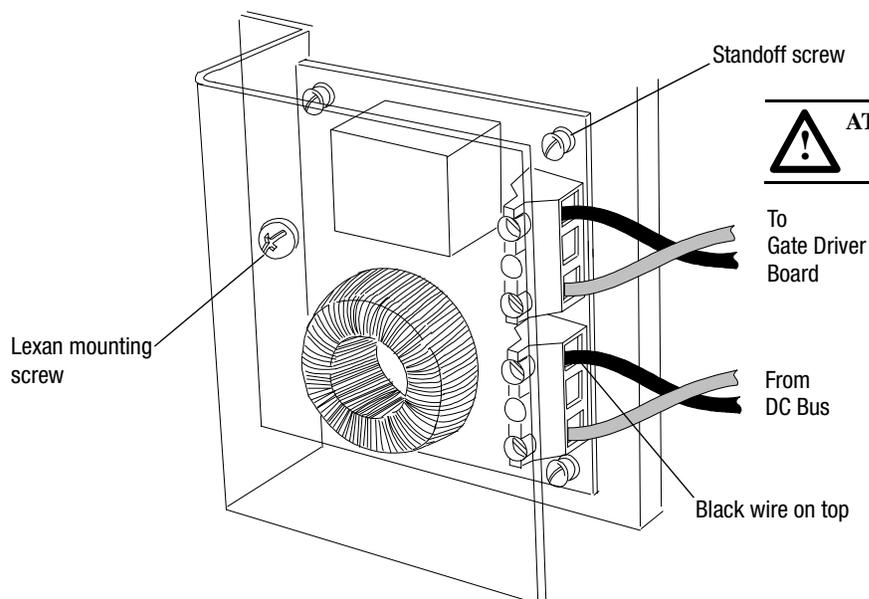
1. Using a meter, test the voltage across the AC line, across the DC bus, and across the terminals on the power supply filter board.



ATTENTION: If there is any voltage present, remove the source of the voltage. Check for voltages again before proceeding to the next step.

2. Remove the screw which mounts the Lexan™ guard.
3. Disconnect the wires from the two terminal blocks.
4. Loosen the standoff screws and gently pull the board from the standoffs.
5. Firmly press the new board onto the standoffs and secure the standoff screws.
6. Connect the wires from the gate driver board to TB1-1 (black) and TB1-2 (red).
7. Connect the wires from the DC bus to TB2-1 (black) and TB2-2 (red).
8. Secure the Lexan guard with the mounting screw.

Figure 1
Replacing the Power Supply Filter Board



ATTENTION: Incorrect wiring may result in equipment damage.

Allen-Bradley Parts

Concluding Steps

After replacing the power supply filter board, verify all connections; check the unit for any tools or debris; and close the bay door. Discard the damaged board according to your company procedures and local ordinances.

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