

## RGU™ Control Power Filter Replacement

### Contents

This document shows how to replace a control power filter in a Regenerative DC Bus Supply (RGU).

### What This Kit Contains

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

<b>For this part:</b>	<b>You should receive this quantity:</b>
control power filter assembly	1

### Other Items Needed

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

- Tools needed for:
  - Loosening and securing screws and bolts
  - Measuring voltages
- Documentation:
  - Your drive system schematics
  - Publication 2364F-5.01, *Regenerative DC Bus Supply Unit (RGU)–User Manual*

# AB PLCs

## Safety Precautions

The following 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 Rockwell Automation publication 8000-4.5.2, *Guarding Against Electrostatic Damage* or any other applicable ESD protection handbook.

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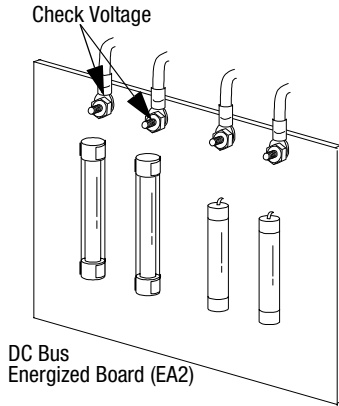
## Special Instructions

**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 control power filter, shut off the power; wait five minutes for voltage to discharge; and open the bay door to the control power filter. Check the filter, wiring, and primary fuses for physical damage (melted copper, burn marks, or damaged components).

## Removing the Control Power Filter

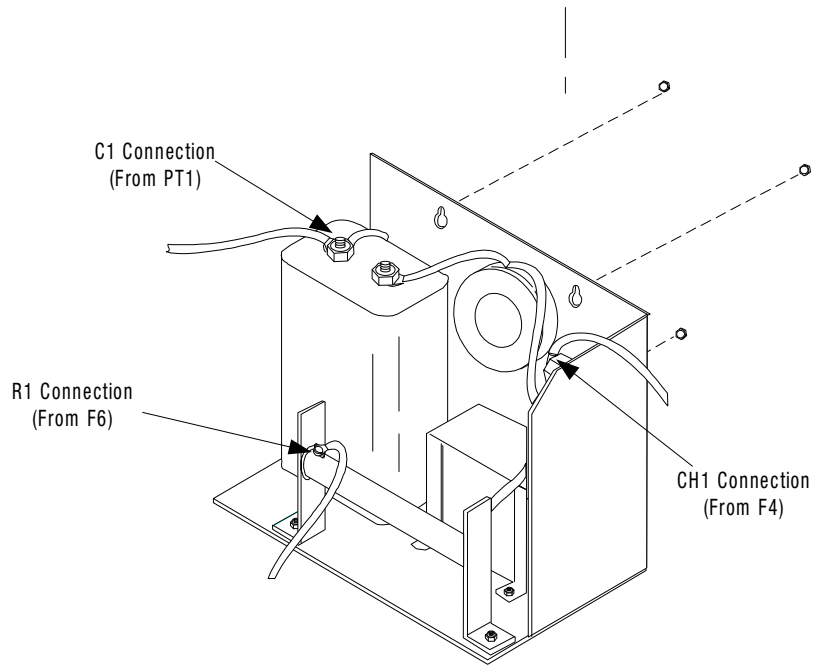


1. Using a meter, check for voltage across the terminals of the DC bus energized board (EA2), then check for voltage across the control power filter components.



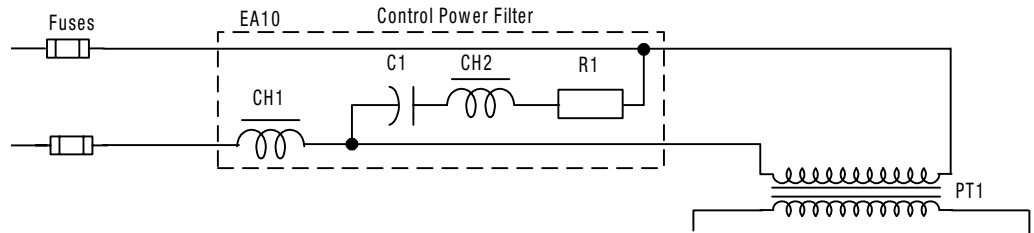
**ATTENTION:** If there is any voltage present, remove the source of the voltage and check for voltages again before proceeding to the next step.

2. Disconnect the control power leads from CH1, C1, and R1 on the control power filter.
3. Loosen the three mounting screws and lift the filter out.



## Installing the Control Power Filter

1. Place the new control power filter on the three mounting screws and secure the screws.
2. Connect the three control power leads appropriately to CH1, C1, and R1.



## Concluding Steps

After installing the control power filter, check for any scrap material or tools in the RGU, and secure the bay door. Send the filter to Rockwell Automation for repair, or dispose of old power filter according to your company's procedures and your local ordinances.



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