

Power Fuse Assembly Replacement (for 3000A 1395 DC Drives)

Contents

This document shows how to remove and replace a power fuse assembly (and how to replace individual fuses) in a 3000A 1395 DC drive.

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 fuse assembly	1

Other Items Needed

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

- Tools needed for:
 - Loosening, removing, and tightening bolts (ratchet with extension, 9/16" and 3/4" sockets)
 - Torquing bolts (torque wrench for 25–45 lb-ft)
 - Testing for voltage (voltmeter or multimeter)
- Documentation:
 - Your drive system schematics
 - Publication 1395-5.40, *Bulletin 1395 Digital DC Drive–User Manual*
 - Publication 2361-5.01, *Bulletin 1395 Digital DC Drive in Bulletin 2361 Motor Control Center for Drive Systems–User Manual*

Safety Precautions

The following general precautions apply when working on drives:



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.

Special Instructions

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

Important: Some washers, such as clamp and Belleville washers, have only one correct orientation.

Preliminary Steps

Before replacing the fuse assembly, shut off the drive power, wait five minutes for the voltage to discharge, open the fuse bay door, and remove all Lexan™ guards shielding the fuse assemblies.

Removing the Assembly

1. Using a voltmeter, test the voltage across the three phases, then across the fuse assembly.



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. Remove the four nuts (and washers) from the front of the assembly.
3. Remove the four bolts (and washers) from the rear of the assembly.

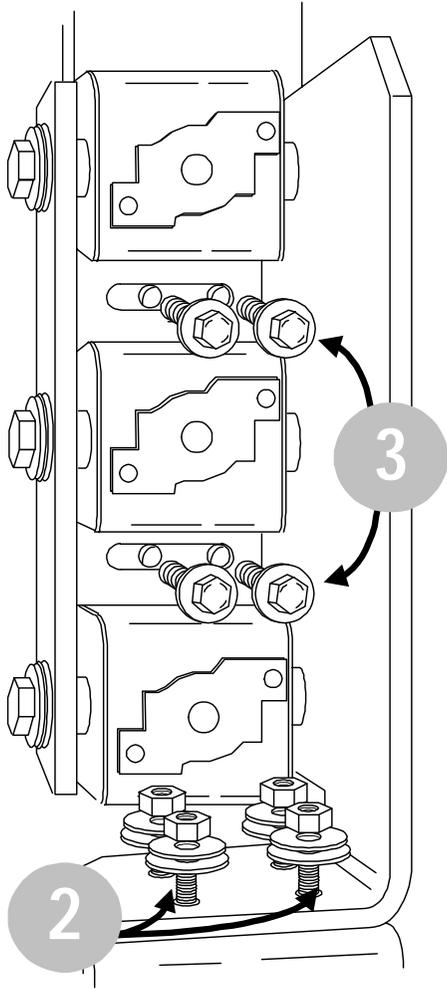
Replacing the Fuses in the Assembly (Optional)

If you are installing a new fuse assembly, you can skip to the next section. Otherwise, you can replace the individual fuses with the following instructions.

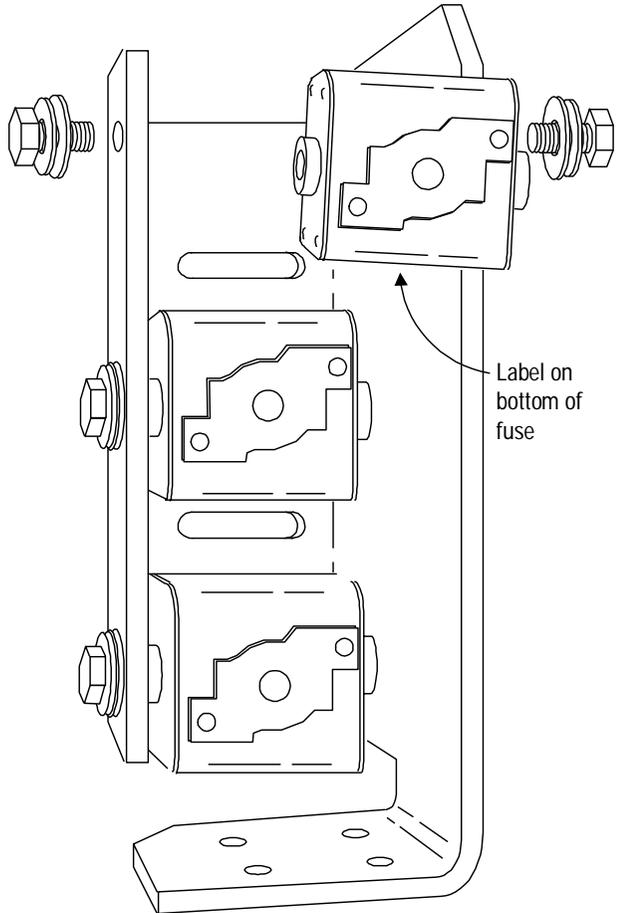
1. Remove the two bolts on the fuse and pull out the fuse.
2. Align the new fuse into the assembly as shown in the diagram.
3. Fasten the two fuse mounting bolts and torque to 45 lb-ft.
4. Replace the other two fuses.

Important: If one fuse in the assembly is blown or weak, all three fuses need to be replaced. Ensure that all three fuses in the assembly are of the same type, size, and manufacturer.

Removing the Assembly



Replacing Fuses



Installing the Assembly

1. Place the assembly into the drive, over the four mounting bolts.
2. Fasten the four bolts (with washers) to the rear of the assembly.
3. Fasten the four nuts (with washers) to the front of the assembly.
4. Torque the nuts and bolts to 25 lb-ft.

Concluding Steps

After installing the assembly, replace all Lexan shielding and secure the fuse bay door. Dispose of old parts according to your company proceduress and local ordinances.

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