



# PowerFlex<sup>®</sup> 700L Frame 2 DC Bus Bar Conversion Kit SK-L1-DCBS1-F2



**ATTENTION:** To avoid an electric shock hazard, ensure that all power to the drive has been removed before performing any steps of these instructions.



**ATTENTION:** To avoid an electric shock hazard, verify that the voltage on the bus capacitors has completely discharged before performing any work on the drive. After removing power to the drive, wait 5 minutes for the bus capacitors to discharge. Remove the front cover of the drive. Measure the DC bus voltage at the DC+ TESTPOINT and DC- TESTPOINT sockets on the front of the drive (see drawing in Step 1.4). The voltage must be zero.



**ATTENTION:** HOT surfaces can cause severe burns. **Do not** touch the heatsink surface during operation of the drive. After disconnecting power allow time for cooling.



**ATTENTION:** This drive contains **ESD** (Electrostatic Discharge) sensitive parts and assemblies. Static control precautions are required when installing, testing, servicing or repairing this assembly. Component damage may 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.

### Where This Kit Is Used

This kit is used to provide electrical connection points to the DC bus of a PowerFlex 700L Frame 2 drive.

### What This Kit Includes

- DC- bus bar and hardware
- DC+ bus bar and hardware
- Flat dielectric support
- Angle dielectric bus bar supports and hardware
- Torque Seal

### Tools That You Need

- Phillips<sup>®</sup> screwdriver (#2)
- Standard flat tip screwdriver
- Torque wrench

Phillips<sup>®</sup> is a registered trademarks of Phillips Screw Company.

## What You Need to Do

To install the PowerFlex® 700L Frame 2 Power Module DC Bus Bar Conversion Kit:

- Step 1: Remove power from the drive.
- Step 2: Remove the drive cover, inverter cassette, and vent cover.
- Step 3: Assemble the kit parts.
- Step 4: Reinstall the inverter cassette.
- Step 5: Document the change.
- Step 6: Reinstall the drive cover.

## Step 1: Removing Power from the Drive



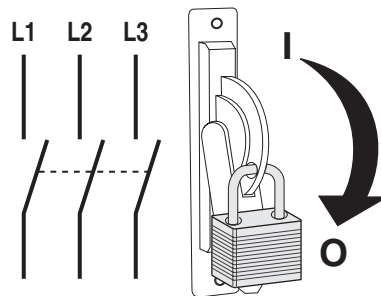
**ATTENTION:** To avoid an electric shock hazard, verify that the voltage on the bus capacitors has completely discharged before performing any work on the drive. After removing power to the drive, wait 5 minutes for the bus capacitors to discharge. Remove the cover of the drive. Measure the DC bus voltage at the DC+ TESTPOINT and DC- TESTPOINT sockets on the front of the drive (see drawing in Step 1.4). The voltage must be zero.

Remove power before making or breaking cable connections. When you remove or insert a cable connector with power applied, an electrical arc may occur, which can cause personal injury or property damage by:

- sending an erroneous signal to your system's field devices, causing unintended machine motion
- causing an explosion in a hazardous environment

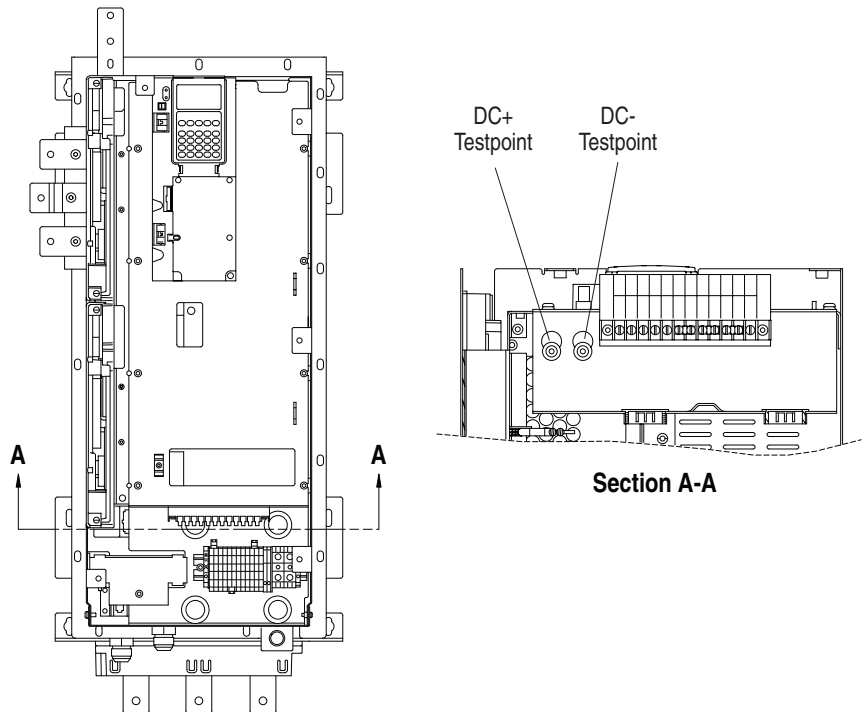
Electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance.

1. Turn off and lock out input power. Wait 5 minutes.



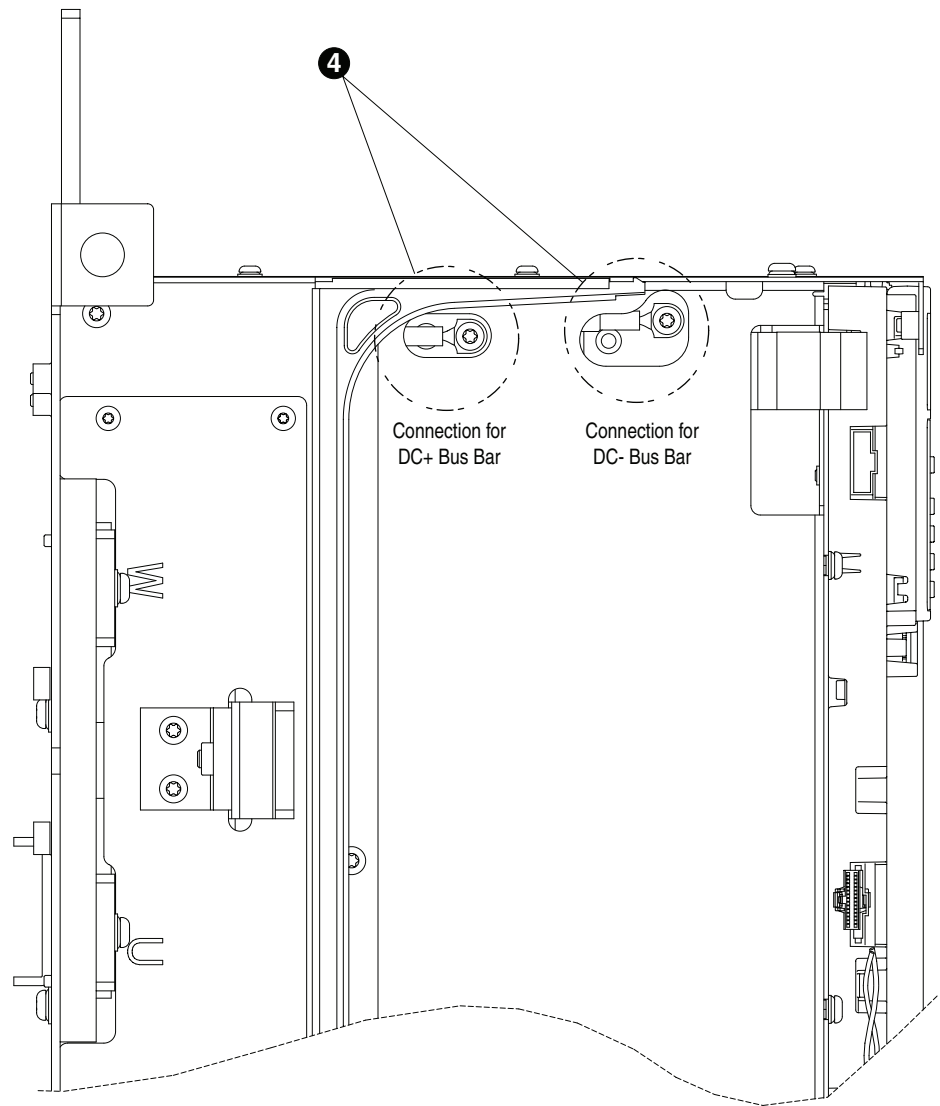
2. Verify that there is no voltage at the drive's input power terminals.
3. Remove the cover of the drive. Loosen the five (5) captive screws and pull the cover off the drive. Set the cover aside to be reinstalled later.

4. Measure the DC bus voltage at the DC+ TESTPOINT and DC- TESTPOINT sockets on the front of the drive chassis. The voltage must be zero.





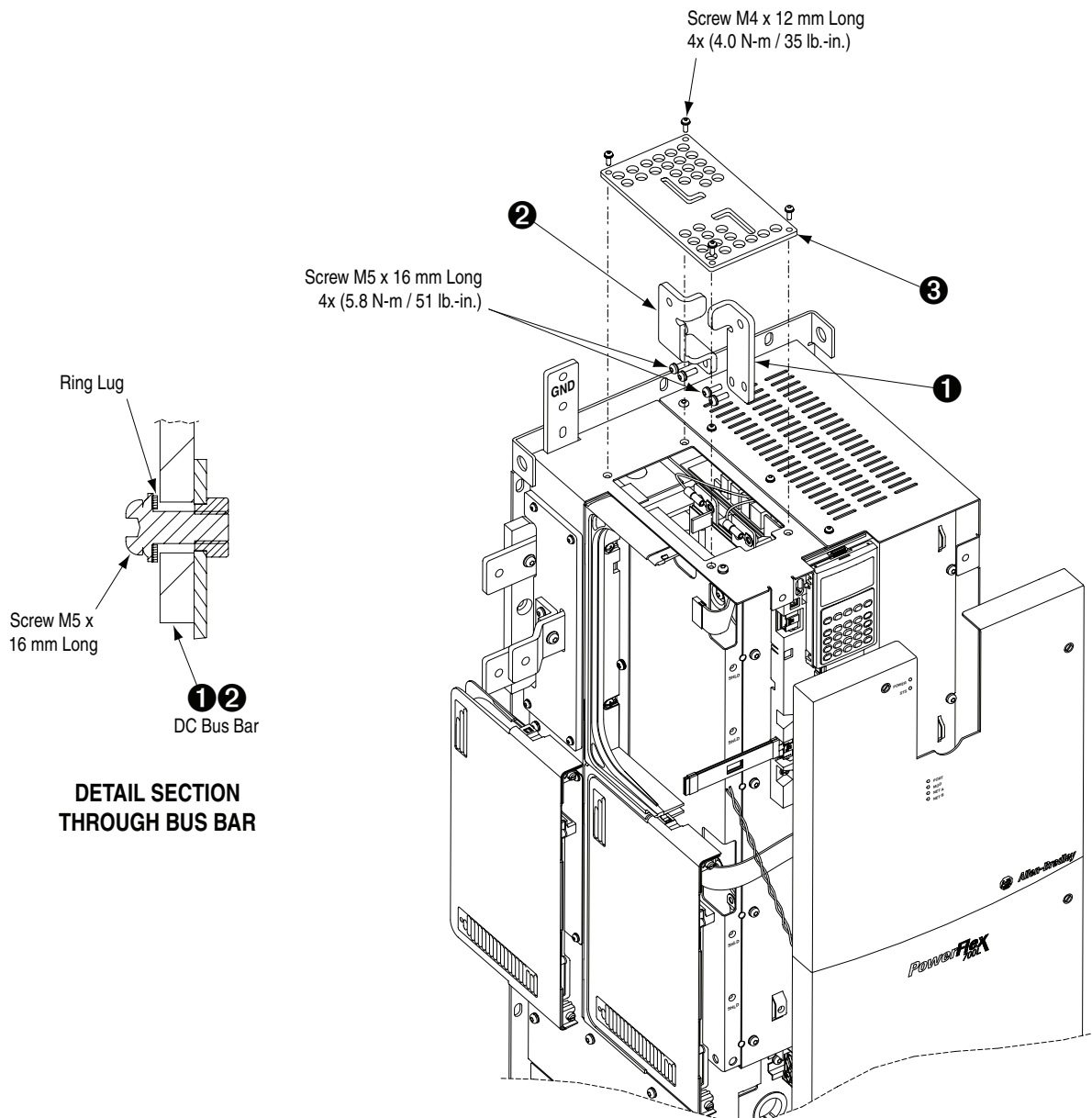
4. Locate the two (2) screws with ring lugs on the laminated bus bar, and remove and discard the screws.



**LEFT SIDE VIEW**  
(with inverter cassette removed)

### Step 3: Assembling the Kit Parts

1. Assemble the DC- bus bar to the drive using the two (2) new M5 x 16 mm (0.63 in.) long SEMS screws from the kit, placing the ring lug between the DC- bus bar and screw head. Tighten to the torque shown in the drawing. Apply a thin stripe of Torque Seal from each M5 screw head to the bus bar.
2. Assemble the DC+ bus bar to the drive using the two (2) new M5 x 16 mm (0.63 in.) long SEMS screws from the kit, placing the ring lug between the DC+ bus bar and screw head. Tighten to the torque shown in the drawing. Apply a thin stripe of Torque Seal from each M5 screw head to the bus bar.



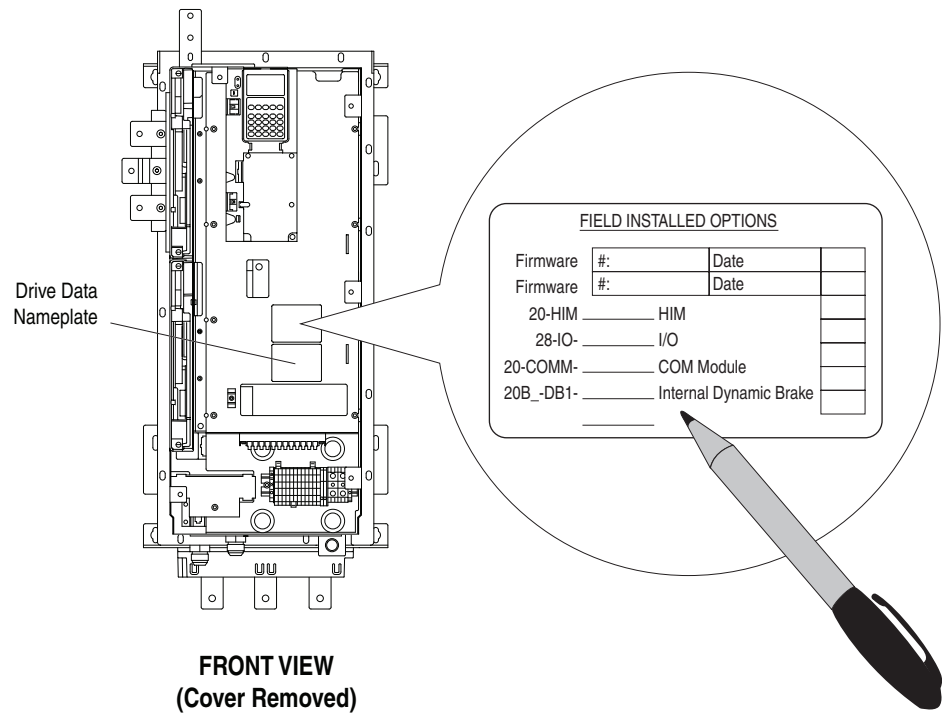
- Assemble the flat dielectric support to the top of the drive. Align the flat dielectric support's L-shaped clearance slots over the DC- and DC+ bus bars, place the support on the drive, and fasten the support to the drive using the four (4) M4 x 12 mm (0.47 in.) long SEMS screws. Tighten to the torque shown in the drawing.

#### Step 4: Reinstalling the Inverter Cassette

Plug the cable connectors into the inverter cassette and reinstall the cassette in the drive.

#### Step 5: Documenting the Change

Record the change on the Field Installed Option label. Use a marker to write in the kit catalog number (SK-L1-DCBS1-F2).



#### Step 6: Reinstalling the Drive Cover

Reinstall the cover onto the drive.

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