



Instructions for Replacing Powerlink G3 Power Supply

Important: Failure to follow these steps could damage the new, replacement power supply. Please follow these instructions carefully.

The Powerlink Power supply has 2 transformers. CL1 for the Control Buses, CL2 for the Controller. The working condition of each section of the Power Supply is indicated by the CL1 and CL2 LED indicators on the Power Supply.

If CL1 LED is not on when the main power is on, it indicates that the Control Bus section of the power supply has failed. Initially, one does not know if it is a simple power supply failure or if it is a compound failure of a control bus and power supply. One can replace the Power Supply only, but if a damaged control bus caused the original power supply to fail, the new power supply will fail as well.

In the procedure below, the electrician will test the existing control buses with the new power supply briefly. The electrician must immediately shut off the Main Power if one or both Control Buses do not start working.

1. Shut off Main Power to the panel.
2. Install the new Power Supply.
3. Before turning on the Mains Power, be prepared to watch the control buses. When the Main Power is switched on energizing the Power Supply, the CPU lights on both Control Buses should immediately start flashing red. If any Control Bus does not start flashing, immediately shut off the Main Power to shut down the Power Supply. The window to shut off the power is only 2 to 3 seconds.
 - a. If the installation has one or more Slave Panels, disconnect the Slave Panels and test the Master first.
 - b. After testing the Master Panel with no Slave Panel attached, shut off Power Supply and attach the first slave panel. Turn on the Power Supply and watch the CPU lights on the slave panel.
 - c. If a Control Bus CPU light did not illuminate, immediately shut off the Power Supply.
 - d. It might be required to have a second person working with the electrician in order to watch the slave panel CPU lights as the Master Power Supply is switched on and declare that a bus is not working. The second person shall call out or radio the primary electrician about the status of the CPU lights when the power is turned on.
 - e. Test each additional Slave Panel in the same manner.
4. If the CPU light on any control bus does not illuminate red when the Master Panel was switched on, then that control bus must be replaced.
5. If the CPU light on all control buses illuminates when the Power Supply was switched on, then the control buses are in good working order and do not need to be replaced.

Similarly, if CL2 LED is not illuminated on the power supply, the Controller may have caused the power supply failure. One should look for the LED indicators D20 and D18 in the upper left corner of the Controller low voltage input compartment to light up as soon as the Power Supply is switched on.