

TROUBLESHOOTING OKUMA BDU AXIS DRIVES & DCPS AXIS POWER SUPPLIES

Use camera to document drives (especially all the dip switches!) before you start. Make sure you leave machine configured as original after troubleshooting. Do not swap control cards, only swap whole drives for troubleshooting purposes. Generally, you can swap up or down one drive size ([30A](#) for a [50A](#) etc.). Exercise caution when troubleshooting. Lethal voltages are present in drive cabinets and on the drives. Make sure the DC bus is discharged by pushing the button the DCPS power supply AFTER turning of the main AC to machine.

BDU Axis Servo Drive Troubleshooting:

- Main machine power on, CNC control NOT on, some drives have Green LED lit,
 - No lit LED on suspect drive. Replace drive
 - PH LED lit. Check 3 phase power at drive connector, Replace drive
 - Any other Alarm LED lit (except LV LED is OK on BDU) before CNC control started, Replace drive. LV LED LIT IS OK ON BDU AXIS DRIVES!
- After CNC control started, control comes up with axis alarm, no axis will move.
 - All drives have LV LED lit: check DCPS and circuit breakers on all drives.
 - One drive has IOCS or IOCM LED lit. Megger motor, replace drive with known good drive.
- After CNC control started, machine runs, other axis move OK, Moving suspect axis causes E-Stop:
 - IOCS, IOCM LED lit. Over current: only on rapids. Alarm resets. May not be drive, call us for troubleshooting.
 - IOCS, IOCM LED lit. Over current: usually fatal. Megger Motor. Swap entire drive to known good axis to verify. Replace drive.
 - LV LED lit. Low Voltage. Check drive circuit breaker, Check DCPS. Probably circuit breaker is tripped.
 - Intermittent HV LED lit. Usually on de-acceleration of drive. Replace DCPS axis power supply.

DCPS Power Supply Troubleshooting:

- Blows circuit breaker, burnt circuit board or Green LED not lit. Replace DCPS. Also check BDU Axis drives to insure none have tripped their breaker, Replace BDU drives with tripped breaker, they probably toasted the DCPS. Call for troubleshooting
- BDU Axis drives have intermittent HV LED lit. Replace DCPS with known good unit.

This guide is for the following:

BDU-15A	BDU-30A	BDU-50A	BDU-75A
BDU-80A	DCPS2-2	DCPS2-3	DCPS2-4
DCPS2-5	DCPS2-6		