

Troubleshooting Guide

E25 DC BUS LOW ERROR

Capacitor Bank Voltage is less than 240VDC at PREP

1. Enter CAL Mode and confirm the BOOST TIME is set to 1.5 seconds (Factory Set).
 - a. AP CONSOLE
 - i. TUBE SETUP > BST TIME = 1.5
 - b. 2PT CONSOLE
 - i. P06 = 1.5
2. Next, confirm +24VDC unregulated power supply for Relays.
 - a. Measure VDC across chassis C9 capacitor.
 - i. Wires '4C' to '4D' = +24VDC? If yes, go to STEP 3.
 - ii. If not, confirm fuse F10 is not open.
 - iii. Then, verify 16VAC output of T3 from LEFT side of fuse F10 (wire '3M') to wire '3N' on BR3 (LT = Left-Top).
 - iv. If not, confirm TB4-10 to TB4-14 = 240VAC. If 240 is present, replace T3.
3. Confirm LED1 on RELAY BOARD (K660-00) illuminates at PREP, followed by LED5?
 - a. If LED1 lights up but not LED5, then the DC BUS VOLTAGE did not exceed 250VDC at PREP.
 - i. Measure VAC on RELAY BOARD across J1-2 to J1-4 during PREP. It should measure LINE VOLTAGE (240VAC).
 - ii. If J1-2 to J1-4 during PREP = LINE VOLTAGE (240VAC), go to STEP 4.
 - iii. If not, check RESISTOR R1 (CERAMIC 10 OHM) and confirm not OPEN.
 - iv. If R1 is good, faulty K1 Relay on RELAY BOARD, replace w/Kit 01985-000.
 - v. If R1 is OPEN, replace w/Kit (CERAMIC 10 OHM) 02283-000.
4. Confirm LED30 on the CHARGE MONITOR BOARD (K445-00) illuminates at PREP.
 - a. If yes, go to STEP 5.
 - b. If not, check CHASSIS BRIDGE BR1
 - i. Measure DC output voltage across BR1 wires '1F' [+] & '1G' [-] at PREP.
CAUTION HIGH VOLTAGE.
 - ii. If no DC output present during PREP at BR1, replace w/Kit 08153.
5. Measure VDC at SYSTEM CONTROLLER BOARD.
 - a. Header H10 pin 4 to pin 1 measures +12VDC and drops to 0VDC at PREP.
 - i. If yes, go to STEP 6.
 - ii. If not, verify & repair (if needed) harness connections from header H10 pin 4 to J5-1 (wire '4N'), and header H10 pin 1 to J5-2 (wire '4M'). Note: Header J5 is on CHARGE MONITOR BOARD (K445-00).
 - iii. If wire harness is ok and error persists, replace SYSTEM CONTROLLER BOARD w/Kit 06357-XXX. **Contact Tech Support**
6. Confirm K6 Relay on RELAY BOARD (K660-00) is energized by 240V SWITCH power.
 - a. Measure VAC on RELAY BOARD across J3-11 to J3-12.
 - i. Does 240V drops to 0V at PREP? If yes, go to STEP 7.
 - ii. If 240V SWITCH is present during PREP, faulty K6 Relay on RELAY BOARD, replace w/Kit 01985-000.
7. Confirm CHARGE MONITOR BOARD (K445-00).
 - a. Measure VDC from J5-1 to J5-2 to be +12VDC, should drop to 0VDC at PREP.
 - i. If 0VDC during PREP, suspect RELAY BOARD, repeat STEP 3.
 - ii. If RELAY BOARD is ok, suspect CHASSIS K1 CONTACTOR COIL, replace w/Kit 08918-XXX **Contact Tech Support**
 - iii. If +12VDC remains, faulty OPTO-ISOLATOR, replace K445-00.