

**5DX - 54**

**S E R V I C E N O T E**

**Agilent 5DX Systems  
 Series 3 Service/Reliability Enhancement**

**Serial Numbers:** USXXXX500/USXXXX555

**Adjust 48-Volt Power Supply to 55 Volts**

**To Be Performed By:** Agilent-Qualified Personnel

**Parts Required:**

P/N	Description	Qty.
N7200-84355	55-volt Label	1

**Tools Required:**

Insulated Standard Screwdriver  
 Voltmeter

**Situation:**

Some Series 3 5DX systems have experienced intermittent Z-axis stoppages, one possible problem could be that the Z-axis stepper motors need more power. Series 2L systems used 65 volts to power the stepper motors while the affected Series 3 systems only use 48 volts.

Note: Two other possible causes for Z-axis stoppages could be a bad Z-axis stepper motor or a loose mount causing alignment problems.

**Solution/Action:**

Before the next scheduled maintenance visit, order the 55-volt Label (PN N7200-84355) and adjust the 48-volt power supply to 55 volts while onsite, according to the attached procedure. The CE should charge his labor and material costs to a Service Contract where applicable. Attach label N7200-84355 indicating that the power supply is now set at 55 volts.

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:		
<b>MODIFICATION AVAILABLE</b>		
ACTION CATEGORY:	AGREEABLE TIME	<input type="checkbox"/> PERFORMANCE ENHANCEMENT <input checked="" type="checkbox"/> SERVICE / RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input checked="" type="checkbox"/> ON-SITE <input type="checkbox"/> SERVICE CENTER	AVAILABLE UNTIL: End of Support
AUTHOR: BRG    PRODUCT LINE: 5DX		
ADDITIONAL INFORMATION:		

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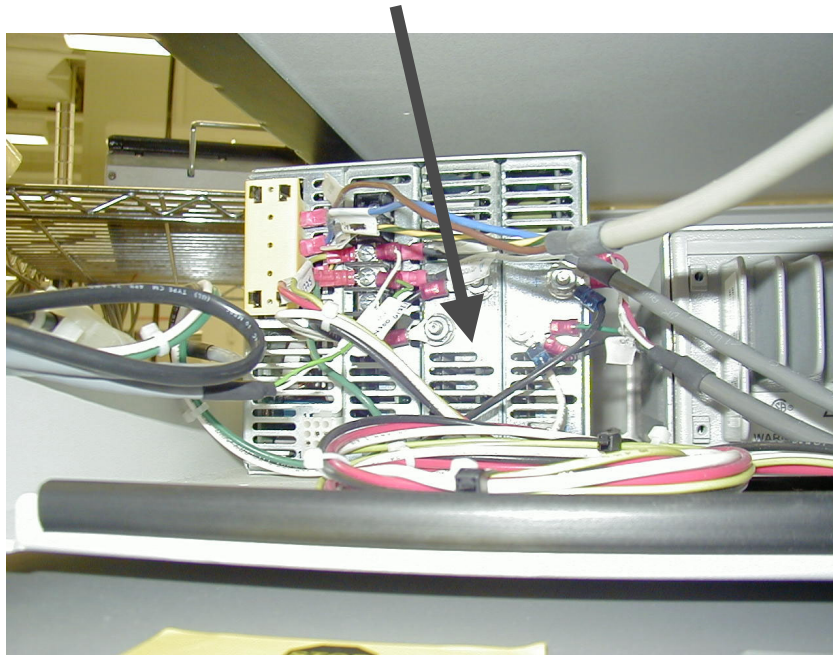
### Procedure for Adjusting the 48-Volt Power Supply to 55 Volts.

- 1) Locate the Low Voltage Power Supply (N7200-66220).
  - It is located in the Electronics Bay on the second shelf from the top. See Figure 1.
  - The supply can be adjusted from the back without moving it.
  - This procedure is for the +48 volt supply.



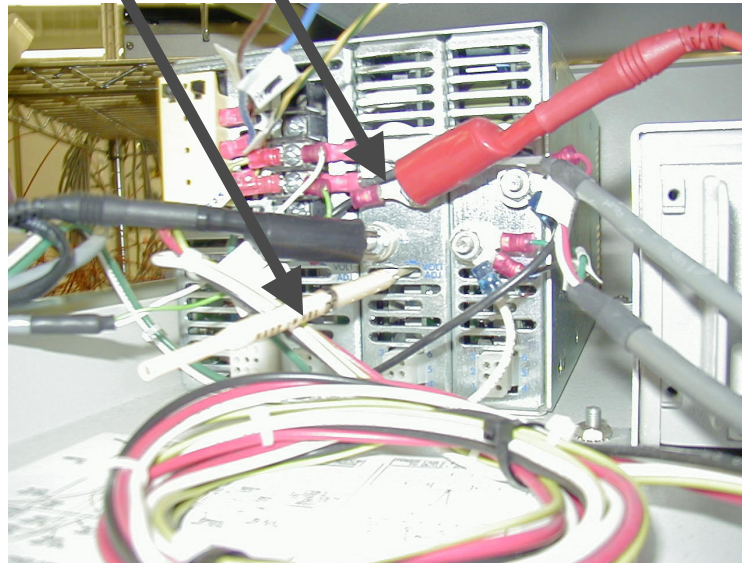
**Figure 1: Low Voltage Power Supply**

- 2) The Low Voltage Supply has three voltages in three different modules.
  - Looking from the back of the Electronics Bay, the +48 volt supply module is the second module in from the right. See Figure 2.



**Figure 2: Locating the +48 Volt Power Supply Module**

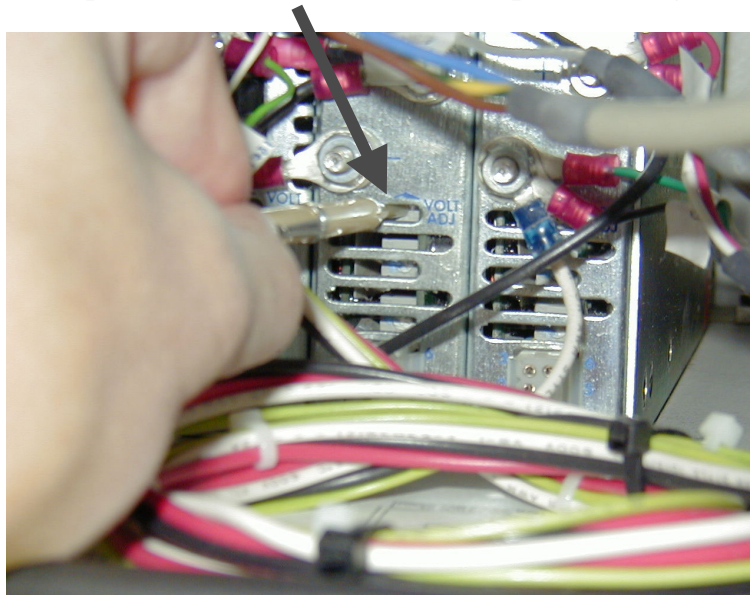
- 3) With the 5DX System powered up, connect a voltmeter to the two screws on the back of the +48 volt supply.
  - The positive lead is the top stud. This is where the right arrow is pointing in Figure 3. In a color picture the voltmeter connector is red.
  - Use an insulated flat blade screwdriver to adjust top potentiometer. The insulated screwdriver protects against shorting to the grounded metal enclosure. Note the left arrow in Figure 3.



**Figure 3: Locating the Potentiometer**

- 4) Adjust the potentiometer clockwise to increase the voltage to +55 Volts according to the connected voltmeter.

**Note: There are three potentiometers. Adjust only the top one. See Figure 4.**



**Figure 4: Adjusting the Potentiometer**

- 5) Attach the 55-Volt label (N7200-84355) to the power supply to warn of a shock hazard.