

S E R V I C E N O T E

SUPERSEDES: NONE

**E3630A Triple Output DC Power Supply**

**Serial Numbers:** KR34700531/KR75311605 for option OE9  
KR34700541/KR75312314 for option std  
KR34700101/KR75312387 for option OE3

**To readjust the Current Limit of the 6V output**

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

**Recommended Test Equipment:**

- Multimeter : 34401A
- Resistive Load : 2.4 ohm 20W
- Electronic Load : 6063A
- Current Sampling Resistor (Shunt) : 100 mohm 0.1% 15W

**Situation:**

The current limit of the 6V output was not factory-adjusted to operate at 2.75 A ± 5 % when the output is set to 6 volts. The current limit (knee) increase only to about 2.55A.

*Continued*

DATE: August 1998

ADMINISTRATIVE INFORMATION

|                                 |   |                            |   |
|---------------------------------|---|----------------------------|---|
| SERVICE NOTE CLASSIFICATION:    |   |                            |   |
| <b>MODIFICATION RECOMMENDED</b> |   |                            |   |
| ACTION CATEGORY:                | <input type="checkbox"/> IMMEDIATELY<br><input checked="" type="checkbox"/> ON SPECIFIED FAILURE<br><input type="checkbox"/> AGREEABLE TIME | STANDARDS:                 | LABOR 1.0 Hours   |
| LOCATION CATEGORY:              | <input type="checkbox"/> CUSTOMER INSTALLABLE<br><input type="checkbox"/> ON-SITE<br><input checked="" type="checkbox"/> SERVICE CENTER     | SERVICE INVENTORY:         | <input type="checkbox"/> RETURN<br><input type="checkbox"/> SCRAP<br><input checked="" type="checkbox"/> SEE TEXT |
| AVAILABILITY:                   | PRODUCT'S SUPPORT LIFE  | USED PARTS:                | <input type="checkbox"/> RETURN<br><input type="checkbox"/> SCRAP<br><input checked="" type="checkbox"/> SEE TEXT |
| AUTHOR: YCP                     | ENTITY: Y300  | AGILENT RESPONSIBLE UNTIL: | August 2000   |
|                                 |   | ADDITIONAL INFORMATION:    |   |



**Solution / Action:**

To adjust the current limit circuit in the +6V supply, proceed as follows.

1. Remove the cover with a flat-blade screwdriver.
2. Check the setting of the current limit by performing steps below.
  - Connect the Resistive Load and the switch to the +6V output terminal in serial and then connect the Current sampling resistor between the switch and the COM terminal. The Electronic load can be used instead of the Resistive Load.
  - Connect the multimeter to the current sampling resistor in parallel.
  - Close the switch, set the total resistance of resistive load and the current sampling resistor to an initial value of 2.4 ohm or greater, and set the output voltage to 6 volts.
  - Reduce the value of resistive load gradually while observing the output current indicated by the DVM. The current should increase to a maximum of  $2.75A \pm 5%$  (2.61A to 2.89A) before it begins to decrease.
3. Be sure to set the output voltage to 6 volts. If reducing the load resistance permits the current to exceed 2.9A, stop, turn R6 slightly clockwise, and repeat the test. If, instead, the current begins to fall before it reaches 2.6A, turn R6 slightly counter clockwise and repeat the test.
4. Recheck the setting and readjust R6 until the test shows that the current limit circuit begins to reduce the current when a decreasing load resistance increase it to  $2.75A \pm 5%$ .