

S E R V I C E N O T E

SUPERSEDES: E3631A-04B

**E3631A Triple Output DC Power Supply**

**Serial Numbers:** KR5360xxxx/KR6020xxxx (a unit with ROM revision code 1.1 or 1.2)  
 KR6090xxxx/KR8261xxxx (a unit with ROM revision code 1.3 or 1.4)

**Firmware upgrade to eliminate output offsets in the OFF state**

**To Be Performed By:** Agilent-qualified Personnel or Qualified customers (Technician level)

**Parts Required:**

P/N	Description	Quantity
E3631-60038	ROM revision 1.6	1
or		
E3631-69001	E3631A replacement unit	1

**Situation:**

When the power supply is in the "OFF" state, the OFF annunciator turns on and the three outputs are disabled; less than 0.6 volts of opposite polarity with no load and less than 60 mA of opposite direction with a short circuit may appear at the outputs.

*Continued*

DATE: May1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
<b>MODIFICATION AVAILABLE</b>		
ACTION CATEGORY:	AGREEABLE TIME	<input checked="" type="checkbox"/> PERFORMANCE ENHANCEMENT <input type="checkbox"/> SERVICE/RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	AVAILABLE UNTIL: May 2001
AUTHOR: YCP	ENTITY: Y300	ADDITIONAL INFORMATION:

**Solution / Action:**

**Note:** Firmware upgrade is only available for the unit with the ROM revision 1.3 or 1.4 code mentioned above in the serial number ranges. The revision code can be identified by the serial number ranges above. The best way to identify the revision code is to use the "\*IDN?" command over the remote interface (GPIB or RS-232). This command returns a string with the following format.

"AGILENT,E3631A,0,1.1-X.X-X.X" (1.1 is revision code)

- For units with ROM revision code of 1.1 or 1.2: The firmware upgrade can only be accomplished by exchanging the unit with a rebuilt exchange unit (PN E3631-69001). This upgrade is available only at customer expense. The ROM with revision code 1.6 will not function in these units.
- For units with ROM revision code 1.3 or 1.4: The firmware upgrade is available at customer expense by replacing the ROM with a new one (rev 1.6). After replacing the ROM (U14) in the socket on the top PC board (E3631-60002), it is strongly recommended to re-calibrate the power supply according to the General calibration procedure starting on page 66 in the Service Guide (E3631-90011).

If the recalibration is not performed after upgrading the ROM, three error numbers (741, 745, and 746) will be displayed on the display as you turn on the power supply. The calibration procedure should comply with the recommendation on page 43 in the Service Guide.

After calibration, please mark on the unit "UPGRADED to 1.6 CODE"

**Recommended Test Equipment:**

Digital Voltmeter: 34401A

Current Monitoring Resistor (shunt): 0.1 ohm 100W 0.1% or 34330A  
(Current shunt 30A Max.)