

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

SUPERSEDES: E3101A-10

**E3101K, 4071A Semiconductor Parametric Tester**

Serial Numbers: See below

**All the SMUs show "another SMU has reached compliance".****Duplicate Service Notes:**

E3101A      Serial Numbers:    JP10D00101 / JP10D00300, JP10D00303, JP10D00304  
 JP20D00301, JP20D00305 / JP20D00312, JP20D00315,  
 JP20D00316, JP20D00318

E3101K      Serial Numbers:    JP10E00101 / JP10E90103

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

P/N	Description	Quantity
E3120-66533	GNDU BOARD	1

**Situation:**

When customer uses the 4071A tester to execute the measurements, the status of measurement results shows "another SMU has reached compliance". And changing the measuring SMU results in the same phenomenon.

*Continued*

DATE: May 1999

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME	STANDARDS:	LABOR 1.0 Hours
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input checked="" type="checkbox"/> ON-SITE <input type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AUTHOR: ET	ENTITY: 3300	AGILENT RESPONSIBLE UNTIL: May 2002	
		ADDITIONAL INFORMATION:	

When the diagnostic (diag4070) is executed, the following message is displayed in the result window during the SMU V/I test:

```
ERROR 2-23021 Status error occurred in SMU.  
port: x, status: 1
```

Our further investigation for this failure found a circuit design bug. Idle current of comparator IC, which has the function to detect the over current, is too large, and its temperature is over 100 degree Celsius. Then the long term heat stress may result in the malfunction of the over current detector.

**Solution / Action:**

When the symptom above is observed, the E3120-66503 GNDU BOARD must be replaced with the new part E3120-66533. Then the problem will be fixed.