

S E R V I C E N O T E

SUPERSEDES: NONE

**E3101A Semiconductor Parametric Tester**

Serial Numbers: JP10D00101/JP10D00283

**Under certain operating conditions, incorrect data is observed.**

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

**Parts Required:**

no part required

**Situation:**

When the following symptoms are observed, it may be caused by a software anomaly.

- Strange measurement data sometimes appears in the customer's applications.
- After the "Init\_system" command is executed, this symptom disappears.
- All diagnostics tests pass.

*Continued*

DATE: September 1998

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input 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 type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
		USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: September 2000	
AUTHOR: ET	ENTITY: 3300	ADDITIONAL INFORMATION: None	



The above symptoms appears when the customer's application has the following conditions:

- 30 V or higher voltage is forced to the pin.
- After forcing it, the "Disable\_port(port\_no)" command is executed to stop the voltage.
- Then the "Connect" command disconnects all the measurement paths.

Example

```
      :  
100 Connect(FNSmu(1),Pin1)  
      :  
150 Force_v(Pin1,30,0,0.01)  
      :  
200 Disable_port(FNSmu(1))  
210 Connect  
220 END
```

Since the wait time between "Disable\_port(port\_no)" and "Connect" is not enough in the TIS, wet switching sometime happens in the above conditions. The wet switching noise may cause wrong data, which shows the relay open/close status, and is stored in the relay status register on the pin board. When this happens, unexpected relays are accidentally closed.

**Solution / Action:**

Update the 4071A software and firmware to revisions 1.13 and 1.10, respectively. This software and firmware revisions are included in the 4071A 1.13 CD-ROM. You can get the DDS tape image that is the same one included in the CD-ROM from the following URL:

<http://agilent.yidmk.jp/agilent.com/english/4071/secure/software.html>

To access this page, you need a user name and password. If you don't know it, please contact "HSTD,Svc-Support".

You can go to the customer site to update the software. But you must confirm the failure symptoms with the customer (ON SPECIFIED FAILURE).

Note that the 4071A software and firmware will be delivered to the software update subscription customers at the end of July.