

S E R V I C E N O T E

SUPERSEDES: None

**4156A Precision Semiconductor Parameter Analyzer**

**Serial Numbers:** JP00000000 / JP10A00287

**Repair for SMU Selftest/Selfcalibration Error 10x24**

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

**Parts Required:**

Part No.	Qty.	Description
04156-69503	1 to 4	HRSMU Module
04155-66508	1	Motherboard

**NOTE**

For the 4155A, see Service Note 4155A-03. You do not need to replace MPSMU module.

**Situation:**

The SMU Selftest/Selfcalibration Error 10x24 (10124, 10224, 10324, or 10424) may occur. This error occurs in any or all of the following executions, and may occur intermittently.

- Power-on Selftest
- Selftest
- Selfcalibration (Auto-Selfcalibration)

*Continued*

DATE: October 1994

**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 Hour (+2H for motherboard replacement)		
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT	USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input checked="" type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		AGILENT RESPONSIBLE UNTIL: October 1997		
AUTHOR: MN	ENTITY: 3301	ADDITIONAL INFORMATION:			

**Solution/Action:**

1. If the failed HRSMU module has the Engineering Date Code (EDC) of less than 3435, replace it. If 3435 or more, go to next step.

The improved HRSMU module has the EDC of 3435 or greater. The EDC is on the label on the bottom cover of the HRSMU module as shown below.

```
+-----+
| HP 04156-66503 |
| 33-3435         |      "3435" is an EDC.
|   ^^^^         |
| 00719-3437     |
| MADE IN JAPAN  |
+-----+
```

2. Check the EDC's of other HRSMU modules. Replace the module if the EDC is less than 3435.
3. If Error 10x24 still occurs and the 4156A Serial Number is JP10A00254 or earlier, replace the Motherboard. If not, do not apply this service note.

The improved Motherboard has the Engineering Date Code (EDC) of 3428 or greater. This Motherboard is used in the 4156A Serial Number JP10A00255 or later.

The EDC label is on the back of the Motherboard. The Motherboard before the improvement does not have the EDC label.

Normally if the Motherboard has the failure, all four HRSMU's should fail with Error 10x24.

```
+-----+
| HP 04155-66508 |
| 33-3428         |      "3428" is an EDC.
|   ^^^^         |
| 00192-3435     |
| MADE IN JAPAN  |
+-----+
```

**Service Inventory/Used Parts:**

- HRSMU Module: Return
- Motherboard: Scrap