

37701A-07

S E R V I C E N O T E

SUPERSEDES: None

**HP 37701A T1 Tester**

Serial Numbers: 0000U00000/3240U00532

**Incorrect TERM Level Measurement on A1 Measurement Assembly.**

**Duplicate Service Notes:**

37702A-01  
37711A-07

**Parts Required:**

Description	HP P/N	Quantity
Resistor 1 Kohm (R104 and R109)	0757-0280	Qty 2
*Test Pin		Qty 1
*Wire (white)		20 cms
*Insulation Sleeve		
* Any suitable part may be used.		

**Situation:**

When performing the Receiver Equalization and Level Measurement performance test, instruments within the serial number range may fail the TERM (Level Measurement) section. The Receiver Level which is measured, may be outside the specified range when measuring the 12 Volts Pk-Pk level. (The range is 10.75V to 13.15V.)

The situation will only arise on the following A1 Measurement Assembly part numbers; 37701-60001, 37701-60211, 37701-60511 and 37702-60001.

*Continued*

DATE: August 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 2.0 Hours
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> HP LOCATION	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	HP RESPONSIBLE UNTIL: August 1996	
AUTHOR: JH	ENTITY: 1400	ADDITIONAL INFORMATION:	

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**Solution/Action:**

A modification should be made to the A1 Measurement Assembly using the suggested parts and following procedure.

**Accessing the A1 Assembly**

For 37711A and 37702A Opt 002 (Datacom in-lid), removal of the datacom part should help make the retrofitting of parts easier.

**Procedure**

1. Switch off and remove the power from the instrument.
2. Place the instrument face down with the carrying handle away from you.
3. Remove the rear panel feet (four screws).
4. Lift off the instrument case. Note the warning "WARNING HIGH VOLTAGE WITHIN" found on the inner metal case.
5. Remove the inner metal case screws (2 on left side, 2 on the right side).
6. Disconnect the 50 way Ribbon Cable from A10 assembly (37702 only).
7. Lift off the inner metal case and place it away from the main body of the instrument, to the extreme of the cable lengths - the Power Supply, Power Fail Detector and DDS interface assemblies are removed with metal case.
8. If the instrument has Option 001 fitted, remove the A6 assembly securing screws (4 off) and fold the A6 assembly back over its connecting ribbon cable. (For 37702A, continue with Step 9. For 37701A/37711A, proceed to Step 11.)
9. Remove the A10 assembly securing standoffs and screws (4 of each).
10. Fold the A10 assembly back over its connecting ribbon cable.
11. Remove all cables from A1 assembly.
12. Unscrew the A1 assembly securing standoffs and screws and remove A1 assembly.
13. After modification, re-assemble the instrument using the Steps in reverse order.

**A1 Assembly Modification**

1. Remove R104 and R109 (287 ohms) and replace with R104 and R109 (1 Kohms).
2. Unsolder connector J6 from A1 assembly. (Do NOT throw away, the connector will be re-used).
3. Drill out the centre hole of J6 from A1 assembly using a 1.5mm drill. Remove pads from top and bottom of this hole.

4. Insulate the centre pin of J6 connector using the insulation sleeve and then replace the connector back on to J6 on A1 assembly. (Ensure that the insulation sleeve is long enough to isolate the centre pin from the board).
5. Resolder the 3 outer pins on connector J6.
6. Unsolder CR3 diode leg from the square pad hole.
7. Solder the pin CR3 square pad hole.
8. Solder the diode leg to the pin.
9. On the circuit side of the board, solder the wire from the pin (in CR3 square pad hole) to the centre pin of connector J6. It may be necessary to shorten the wire length.
10. Use some adhesive to secure the wire to the board.
11. The modification to A1 assembly is now complete.

**Performance Verification**

1. Perform the Receiver Equalization, Gain and Level Measurement test.