

S E R V I C E N O T E

SUPERSEDES: None

37702A Digital Data Tester

Serial Numbers: 3239U00101 / 3239U00141

Incorrect TERM Level Measurement on A1 Measurement Assembly

Duplicate Service Notes:

37701A-07
37702A-01
37711A-07

Parts Required:

Part No.	Qty.	Description
0757-0280	2	Resistor 1 Kohm (R104 and R109)
	1	* Test Pin
	20 cms	* Wire (White)
		* 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:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS:	Labor 2.0 Hour
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 type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AUTHOR: JH	ENTITY: 1400	AGILENT RESPONSIBLE UNTIL: August 1996	
		ADDITIONAL INFORMATION:	

Solution/Action:

A modification should be made to the A1 Measurement Assembly using the parts and procedure recommended in this service note.

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 right side).
6. Disconnect the 50 Way Ribbon Cable from the A10 assembly (37702A 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 the 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 the cables from A1 assembly.
12. Unscrew the A1 assembly 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 center hole of J6 from A1 assembly using a 1.5 mm drill. Remove the pads from the top and bottom of this hole.

4. Insulate the center pin of J6 connector using the insulation sleeve and then replace the connector back into J6 on A1. (Ensure that the insulation sleeve is long enough to isolate the center pin from the board).
5. Resolder the 3 outer pins on connector J6.
6. Unsolder the 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 center pin 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.