

S E R V I C E N O T E

SUPERSEDES: NONE

HP 34401A - Digital Multimeter

Serial Numbers: US36044000/US36045500

RS232 Communication Error for the HP34401A

To Be Performed By: Test may performed by the customer, the part must be ordered and replaced by an HP Repair Specialist

Parts Required:

Model	HP P/N	Description	Quantity
HP 34401A Std	34401-89800	Replacement Unit	1
HP 34401A Opt.1BP	34401-89801	Replacement Unit	1

Situation:

Improper fabrication of a programmable IC has resulted in production of some products that will not communicate through the RS-232 interface. The only product feature affected by this fabrication defect is the RS232 communications interface. All attempts to communicate across the RS232 interface will result in one of the following errors:

- No response on the front panel keys of the instrument
(no key clicks)
- An error indication hardware and /or software
- An instrument malfunction

Continued

DATE: July 1998

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	☐ IMMEDIATELY ☒ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: LABOR 1.0 Hours	
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ☒ HP LOCATION	SERVICE INVENTORY: ☒ RETURN ☐ SCRAP ☐ SEE TEXT	USED PARTS: ☒ RETURN ☐ SCRAP ☐ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		HP RESPONSIBLE UNTIL: July 2000
AUTHOR: REM	ENTITY: 0940	ADDITIONAL INFORMATION:	

Solution / Action:

Defective units can be identified by doing one of the following three tests:

- 1) Have a qualified service technician remove the rear bezel and cover and visually inspect the IC listed below:

Inspection criteria: The defective IC will have a yellow paper label with markings:
34401-88842
Rev 5

Note: This IC (U700) is located near the HPIB connector. Component Locator Diagram may be found in the Product Service Guide, page 9-5.

- 2) This test uses front panel menu selections and a jumper between two pins on the RS232 connector.
 1. Setup your unit for RS232 communication, use the following keystrokes:
 1. Shift - Menu ON
 2. >, >, >, > to the "INPUT/OUTPUT" menu
 3. V, > to the "INTERFACE" menu
 4. V, > to the "RS232", ENTER
 2. Turn the unit off and place a small jumper between pin 2 and pin 4 of the RS232 connector (located on the back of the unit).
 3. Turn unit on. A defective IC will cause the unit to give you an error "625" and beep continuously.
 4. Good units will give an error "511" and only beep once.
- 3) This test requires the user to connect the unit to a Personal Computer with an RS232 cable (F1047-80002 or equiv.) and attempt to communicate using:
 - HP 34812A BenchLink Meter
 - Win 3.1 Terminal
 - Win95 Hyper Terminal

(Please refer to your HP 33120A or HP 34401A or HP 34420A User Guide, Chapter 4 Remote Interface Reference, Section - RS232 Interface Configuration, for the proper configuration between your computer and the unit being tested.)

After you connect the unit to a PC with the proper RS232 cable and configure the interface, try sending "*IDN?" command. If the unit has a defective IC there will be no response. If you receive back the instruments identification string then the instrument does not have a defective IC.

Units that to meet the criteria listed below are defective. Criteria:

- Within the listed serial number range
- One of the three tests has been performed and the results indicates a defective unit

Defective units are to be exchanged for a proper replacement unit
(See part number listed above).

Please return the defective unit directly to the factory using the enclosed prepaid shipper
or to:

Hewlett-Packard
815 14th Street S.W.
Loveland, CO. 80537
USA
Attn: Instrument Repair Coordinator; MS DU402