

S E R V I C E N O T E

SUPERSEDES: NONE

34902A 16-Channel Multiplexer

Serial Numbers: US37000000 / US37001644

New Code Eliminates Simultaneous Closure of All Channel Relays

To Be Performed By: Agilent-Qualified Personnel or Qualified Customers (technician level)

Parts Required:

P/N	Description
34902-88831	Programmed EPROM/Microprocessor Version 1.3

Note: The required part is available in a kit that also includes an extraction tool to assist in removing the part being replaced from the socket. This kit must be requested directly from the Agilent factory and will be sent directly to the customer. The P/N of the kit is 34902-80010 and may be requested by sending a FAX message or an e-mail message to:
 FAX Phone Number (USA): (970) 679-5988
 E-Mail Address: emd-repair@agilent.com

Include the following information in your message:

- Request for kit P/N: 34902-80010
- Serial Number of the 34902A being modified
- Ship to address (need a street address for package delivery)
- Name of person to receive the part

Continued

DATE: January 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME	STANDARDS:	LABOR 0.5 Hours
LOCATION CATEGORY:	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input 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 checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: October 2001	
AUTHOR: DL	ENTITY: 0940	ADDITIONAL INFORMATION:	

Situation:

All 34902A channel relays are simultaneously closed briefly during the first power-up cycle after connecting the 34970A/34902A to the line voltage. This also occurs following an interruption of line power. These unwanted relay closures can create stresses that will shorten the life of the 34902A relays or create unwanted stresses on circuits connected to the 34902A.

Cycling the front panel On/Standby Switch on the 34970A does not cause the 34902A channel relays to be closed simultaneously.

Solution / Action:

Replace U101 with P/N 34902-88831. U101 is a large integrated circuit in a socket adjacent to connector J101. Use the 34902A component Locator drawing in the 34970A Service Guide to help locate U101. Installation of this part into the 34902A will not affect the calibration of the 34970A/34902A product combination.

Follow these steps to replace U101: (please use appropriate ESD procedures)

- Power-down all circuits connected to the 34902A that is being modified.

CAUTION:

Verify that all power is removed from the circuits connected to the 34902A. Any voltages present in these circuits may be attached to terminals inside the 34902A. These terminals can be touched by following these instructions.

- Disconnect the 34970A from the line by removing the line cord
- Remove the 34902A from the 34970A
- Remove the clear top cover from the 34902A (wiring to the 34902A may remain connected)
- Replace U101 with P/N 34902-88831 (Use an appropriate extraction tool to remove the IC from the socket)
- Reassemble the 34902A by installing the cover then reinstall the 34902A in the 34970A
- Connect the line cord to the 34970A and restore power to all instruments and circuits

Verification: (Has this 34902A been modified?)

Method 1: The P/N on the socketed IC is 34902-88831 on units that Have been modified. The P/N can be observed through the clear plastic cover on the 34902A.

Method 2: Enter the 34970A "utility" menu (front panel). Depress the "utility" key twice to get the "REV XX-XX-XX" message. Rotate the knob to obtain messages relating to the modules in the slots. The messages for slots containing 34902As will indicate REV 1.3 for all units that have been modified.