5335A-26B

S E R V I C E N O T E

SUPERSEDES: 5335A-26A

HP 5335A Universal Frequency Counter

Power Supply relay problem

Serial Numbers: 0000A00000 / 2934A14126

To Be Performed By: Customer / HP-Qualified personnel

Problem Identification:

The Power Supply relay (K1) pin 11 shows evidence of over-heating or burning under continuous running conditions. The instrument cannot be turned on even though the relay coil has been energized.

Solution:

For instruments below serial prefix 2416A on "old" Power Supply HP part number 05335-60001, order kit part number 05335-67001. If the Power Supply part number is 05335-60031, (for instruments with serial number 2416A05801 or above) order kit part number 05335-67002. Each kit includes all parts required and complete modification procedures.

Continued

DATE: 23 March 1992

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

MODIFICATION RECOMMENDED

ACTION CATEGORY:	☐ IMMEDIATELY ■ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: LABOR: 1 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	RESPONSIBLE UNTIL : 23 March 1994			
AUTHOR: AI	ENTITY: 0200	ADDITIONAL INFORMATION: HP P/N 05335-90040			

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Parts Required:

Parts list for Kit part numbers 05335-67001 and 05335-67002:

HP Part No.	Description	Qty.
3160-0450	DC fan	*1
1251-4707	Test pin	*2
---	Wire (20 gauge)	18 inches
1901-0050	Diode (CR7)	*1
0490-1172	Relay	1
0490-0468	Relay socket	1

* These parts are not needed for 05335-60031 with prefix 24160 or above, and are not included in kit number 05335-67002.

WARNING

Before performing any of the following procedures please ensure that you are in an anti-static environment.

NOTE:

-- For Kit number 05335-67001, follow all instructions below.
-- For Kit number 05335-67002, omit steps 3,4, and 7 below.

Modification Procedure:

1. Unplug the instrument and remove the top and bottom covers.
2. Locate A1 Power Supply part number 05335-60001 or 60031.
3. Unsolder and remove the fan from the A1 Power Supply. Also, remove and clip the two white wires that connect the line module to the PCB. (located next to the fan leads)
4. Note the polarity of CR7. Remove CR7, and solder two test pins into the vacant holes. Attach the new CR7 to the test pins close to the circuit board.
5. On the circuit side, solder one end of wire to the output side of F1's fuse holder (close to F2). Route the other end of the wire to the hole connected to pin 9 of the relay socket identified by "ACF" and solder in place.

6. Remove the orange wire from test pin marked "ORN". Solder one end of another piece of wire to test pin "ORN" close to the circuit board. Route the wire along the component side to the hole near pin 10 of the relay socket (indicated by WARNING label). Cut and solder in place.
7. If the A1 Power Supply board is series #2336A or greater, it may be easier to solder the red lead from the new fan to the "H" hole (located near the WARNING - 120V label next to CR7) and solder the blue lead from the fan to the "L" hole. Otherwise, solder the red lead from the fan to the cathode of CR7, and solder the blue lead to the anode of CR7.
8. Remove the relay socket and replace with the new part (0490-0468).
9. Insert the new relay into the socket. Reconnect the orange wire to test pin "ORN". Reinstall top and bottom covers.
10. Verify functionality of the instrument by powering on the counter and checking that the display conditions are normal and that power-up tests pass.